



APPLE'S NEW DISPLAYS P.14
Take a sneak peek at the stunning 30-inch Cinema Display.



THIRD ANNUAL GEEK QUIZ P.34
We dare you to match wits with our editors—how high will you score?

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SEP
2004

MacAddict

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OS X Changes
Everything

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11 affordable inkjets

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After Effects 6.5, Combustion 3,
DVD Studio Pro 3, Call of Duty,
SightLight, Mariner Write 3.6.1,
and 16 more...



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Powerful new technologies deep inside Apple's soon-to-be-released operating system posses startling potential. We show you how Tiger changes everything. **by Rik Myslewski**



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66 Import DVD Clips into iMovie

If you think your own dull DV footage is a snorefest, think about how boring it is for those you coerced into watching it. Liven things up by inserting clips from your DVDs. **by Johnathon Williams**

70 Build a Cocoa App with Xcode

Rejoice in being a cheapskate: Create sophisticated Mac OS X apps without spending a penny on third-party programming software. **by Erick Tejkowski**

73 Play Games without the CD or DVD

There's no reason to lug around stacks of CDs and DVDs when you take your gaming to go. If you've got a vacancy on your hard drive, turn discs into data instead. **by Kris Fong**

74 Send and Receive Email Remotely

You needn't be at home to read and send email from your personal account. We show you how to access your email remotely and offer workarounds to access secure ISP servers. **by Paul Yoon and Kris Fong**

MacAddict

every month

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This month we're introducing a few new ways to help you get the most out of your Mac.

10 Get Info

Apple's Motion goes toe-to-toe with Adobe After Effects—find out the strengths and weaknesses of each top-drawer motion-graphics app. Check out Apple's new 30-inch, 4,096,000-pixel Cinema Display. MacSoft rewrites history in *Rise of Nations* and Ubisoft takes *Myst* back to its puzzle-solving roots in *Myst IV: Revelation*. Plus, get your photoblog up and running.

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63 The Hot List

We'd spend our own hard-earned money on these products.

QUICK TIPS

FROM THIS MONTH'S ISSUE

➔ CARE TO COMMENT?

Rather than slog aimlessly through huge chunks of code, flag sections by inserting code-descriptive *comment lines* (text preceded by double slashes). From "Build a Cocoa App with Xcode," p70.

```
if ([theEvent keyCode] == 123)
{
    // =====
    // left arrow pressed - move selection one to the left
    // =====
    currentlySelected--;
    if (currentlySelected < 0)
        currentlySelected = [dataArray count]-1;
    [self setNeedsDisplay:YES];
}
if ([theEvent keyCode] == 36)
```

➔ GET PERMISSION

If you copy DVD clips for a project beyond your personal use, your only get-out-of-jail-free card lies in an official authorization letter from the copyright

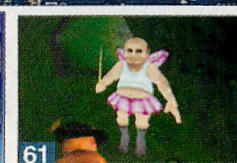
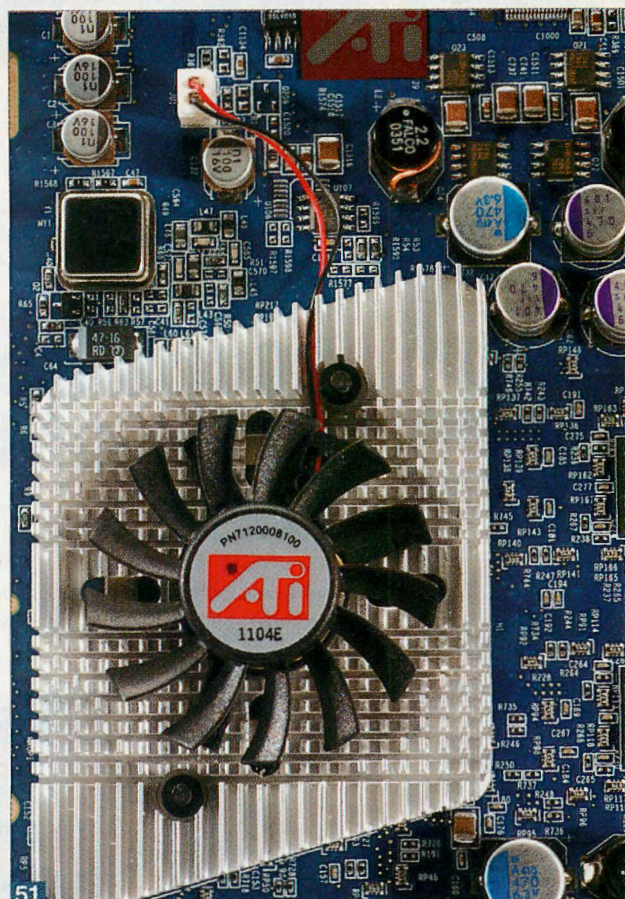
holder—get permission first. From "Import DVD Clips into iMovie," p66.

➔ BE A TERMINAL GEEK

You needn't summon Disk Utility to fix disk permissions. In the Terminal, type `sudo diskutil repairPermissions /` to fix them. From *Ask Us*, p64.

➔ PICK YOUR PAPER

When printing photos on photo paper, don't just press Command-P and dismiss the print dialog. You'll get better results if you dig into the printer driver software—at least far enough to specify what type of paper you're using. From "The Great Budget Photo-Printer Hunt," p24.



94 Log Out

94 Letters
Karaoke changes one reader's life, Windows NT embarrasses itself again, and we learn one more reason not to move to Florida. Plus, the *MacAddict* staff walks into a bar, and the bartender says...



again, and we learn one more reason not to move to Florida. Plus, the *MacAddict* staff walks into a bar, and the bartender says...

95 Contest
Win an Olympus digital camera.

96 Shut Down
Le geek, très chic!



Featuring: TALIB KWELI SAVION GLOVER



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the disc

The theme of this month's Disc is *big*. A demo version of Aspyr's WWII shooter *Call of Duty* (●●●●●● p52) weighs in at over 250MB. Trial versions of two top video-effects and motion-graphics powerhouses also occupy expansive real estate: Adobe's *After Effects 6.5* (●●●●●● p46) at 200MB, and *Discreet's Combustion 3* (●●●●●● p47) at 100MB—and we still managed to slip in a bunch of other useful apps and utilities.

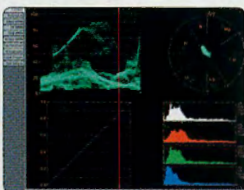
Call of Duty demo

Prepare to sit on the edge of your seat for hours—if you're lucky enough to live that long.



After Effects 6.5 trial

Adobe blew it. This upgrade from version 6.0 deserves to be called 7.0—it's that much improved.



Combustion 3 trial

If After Effects 6.5 can't provide you with all the power you need, Combustion 3 can lend a hand.



AUDIO & MUSIC

iTunes Library Manager 4.0 shareware

FUN & GAMES

Call of Duty 1.0 demo

GRAPHICS & MULTIMEDIA

After Effects 6.5 trial

Combustion 3 trial

InEffects 1.0 demo

PRODUCTIVITY

FontBook 4.1 shareware

Mariner Write 3.5.1 for OS 9 demo

Mariner Write 3.6.2 for OS X demo

Smart Styles CS 3.0 demo

UTILITIES

DiskTracker (Classic) 2.3

DiskTracker (OS X) 2.3

Snapz Pro X 2.0 shareware

uControl 1.4.4 freeware

Yellow Button 1.2.6 shareware

Staff Video: How to Become a Successful Intern

Working as an intern at a magazine full of demanding editors can be nerve-racking. Find out how *MacAddict* intern Noah Tsutsui rose to the challenge.



MacAddict

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Info Junkies Unite!



If there's a contemporary saying I particularly loathe, it's "That's too much information!" I don't believe there is such a thing, whether you're telling me about a new disk utility or your uncle's gall-bladder surgery. I just gotta *know*, and the more information I have, the merrier I am.

When it comes to your Mac—though maybe not my uncle's gall bladder—I assume you feel the same way. You want professional insight into what's happening in the Mac community, warnings about the latest bugs

(and how to squash 'em), and news about the coolest new products and technologies. To help, this month we're launching three new editorial morsels. Here's what they're about.

This month we're launching three new editorial morsels.

Expert User: Each month, one of our contributing editors—or another similarly savvy Mac addict—will weigh in on a topic near and dear to their creative heart. It's fitting and proper that our first Expert User is Joseph O. Holmes—he's been on our masthead since volume 1, issue 1, released September 1996. Turn to page 13 for Joe's take on the latest and greatest way to share your vision with fellow photobloggers: photoblogging.

Bug of the Month: Sometimes owning a Mac is like playing whack-a-mole—just when you think you've battered down that final bug, another one pops up. Bugs, it seems, are eternal. To keep you up-to-date on the latest infestation—and what you can do about it—we turned to our buddies at MacFixIt.com, one of the Web's top news and troubleshooting sites. Each month they'll warn you about recently discovered nastiness and lead you into battle against it. This month, MacFixIt.com conquers Safari-connectivity problems on page 18.

What's New: Each of us here at *MacAddict* keeps our eyes peeled for hot developments in our own favorite product categories. For example, I'm a storage and CPU geek, Jenifer's into productivity software, and so on down the line. So to share our insider information, we'll dig down deep each month into a category or three; I start the ball rolling with the latest developments in storage on page 18.

We hope you enjoy these new additions to *MacAddict*. Check 'em out, and let me know what you think.

Enjoy,

Joe

coming soon: october 2004

Some of today's best software is **shareware, freeware, and donationware**—we'll show you all of it and give you the best on the Disc. We're also rounding up the **best iPod gear and affordable scanners** on the planet. After you pick the perfect inkjet printer this month (see "The Great Bargain Photo-Printer Hunt," p24), we'll show you how to make **fine art and novelty prints** with it next month. We'll also show you how to **create a Sherlock Channel** and how to **change your user name**. Rock your house with **AirPort Express** and rock your wireless network with **double-speed WiFi gear** while protecting yourselves with **new backup software**. Finally, we'll show you how to learn history while 'splodin' stuff in **Battlefield 1942**.

STAFF RANTS

Q. What would you add to *MacAddict*?



Niko Coucouvanis INTERN EMERITUS

What would you add to *MacAddict*?

That's easy: more interns! The price is right, and they're sponges for abuse. Oh, you mean in the mag? That's easy too: more celebrity and product deathmatches.



Jenifer Morgan WHINE-O

What would you add to *MacAddict*?

A wine section! How to get away with drunk mousing! The best utilities for scheduling drinking breaks! Slur-proof text-to-speech tips! The top 10 ways to avoid staining your keyboard! The well of related topics is endless!



Noah Tsutsui FAUX-TOGRAPHER

What would you add to *MacAddict*?

MacAddict definitely needs an annual swimsuit edition. Then I'd really be able to put my photography skills to good use.



John Poultnery OLFACTORY ENTHUSIAST

What would you add to *MacAddict*?

I would add a *Scratch 'n Sniff* section so readers could find out what products smell like. Especially toner. *Phew!*



Peter Marshutz CHEAP PETE

What would you add to *MacAddict*?

I would add *Deal of the Month*—the best price for a music download, discounted hardware, software, or any other good product that has a ridiculously low price.



Kris Fong FUZZY-LOGIC EVANGELIST

What would you add to *MacAddict*?

Tactile covers, such as a furry, striped one when Tiger launches, or something green and gooey for the Bugs issue. This month's Geek Quiz issue should be encrusted with Cheetos dust—though you might not receive it if your mailman has the munchies.



Mark Rosenthal USB BOOK READER

What would you add to *MacAddict*?

How about book reviews? For every application, it seems that there are at least a dozen how-to books. We should guide our readers to the best.

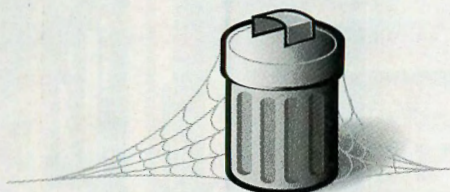


Max 2D SHADCHEN

What would you add to *MacAddict*?

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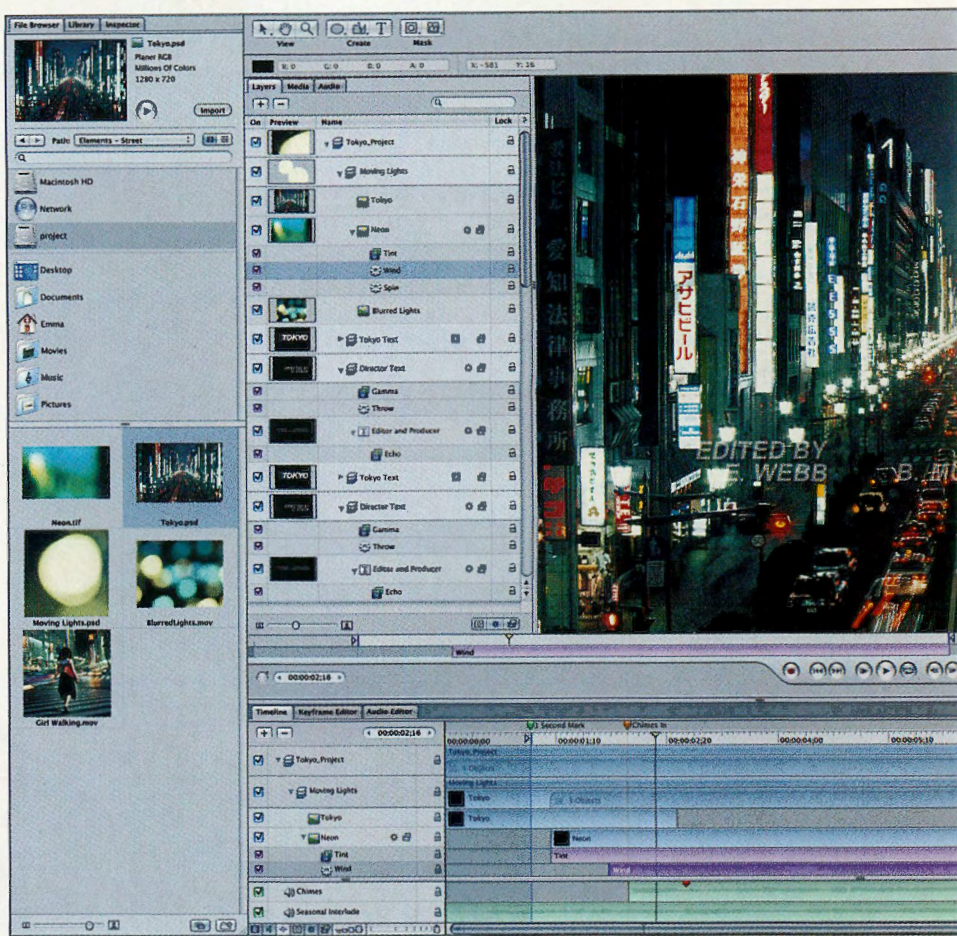
Apple stirred up this spring's National Association of Broadcasters (NAB) show in Las Vegas when it previewed Motion, its real-time motion graphics app set for release soon. The \$299 software is billed as a companion to Final Cut Pro, although it will work as a stand-alone app as well.

Production houses are accustomed to pricey dedicated hardware and expensive software, so an inexpensive product such as Motion—especially one with all the features Apple claims it has—grabbed a lot of attention. Some video enthusiasts will welcome Motion with open arms, though the rollout may cause consternation at Adobe.

Adobe is famous for killer apps, such as Illustrator and Photoshop, that are so good they drive Mac hardware purchases. One such killer is After Effects (\$699 standard or \$999 professional, www.adobe.com), a video powerhouse used by production houses and animators for compositing, animation, and special effects. Available for more than 12 years, it's supported by a slew of special-function plug-ins, has wide industry support, and is tightly integrated with Photoshop and Illustrator. After Effects has serious momentum, and pros use it for everything from Web banners to cinematic special effects. Discreet's animation package, Combustion (\$995, www.discreet.com), is also widely used, though not as popular as After Effects.

ABANDONMENT ISSUES

Professionals probably won't abandon these apps once Motion gains a foothold in the video industry—and that's good news, seeing as how Adobe abandoned Mac development for its Premiere video app after Apple introduced Final Cut Pro. That said, Motion's low price and simple interface will likely entice a good number of newcomers into the animation fold, and its ties to Apple's DVD Studio Pro (\$499, www.apple.com) make it a strong choice for creating slick animated DVD interfaces. "The majority of people who want to get started in motion graphics but don't know how—that's who it's for," says Richard Kerris, Apple's senior marketing director for professional applications. He adds that professionals



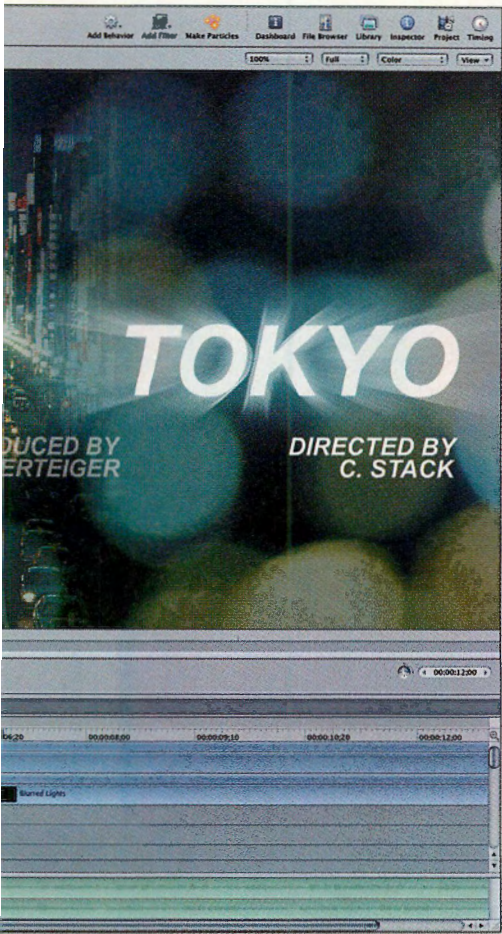
MAKE WAY FOR

currently using other programs will likely add Motion to their bag of tricks. "With this software, we want to do for motion graphics what Final Cut Pro did for nonlinear video editing," Kerris says.

Motion and After Effects share some features, including a timeline metaphor, media-management tools, Bézier masks, text paths, an unlimited number of video tracks, RAM-based preview playback, and the ability to import and rasterize PDF files. After Effects has the edge in some areas, however. Its Expressions scripting language lets you set up highly complex procedural animation effects—for example, you might set up a script to automatically resize an element and change its opacity as it moves about the screen. Expressions also allows you to automate production-intensive tasks

such as batch processing, background rendering, and other chores that crop up in professional production work. However, while Motion has other great features—including text-specific behaviors for complex title animations, and physical simulation of gravity and magnetic attraction—as far as we can determine from early previews, it offers little in the way of automation, which is a definite drawback for higher-end users.

On the other hand, Motion's integration with Final Cut Pro makes a compelling case for its future success, especially for newer users. According to Apple, Motion will directly import Final Cut timelines with all cuts, layers, motion, and blending information completely intact. This is an incredible time-saver for anyone making special



MOTION

effects in Final Cut productions and is immensely helpful for sequences that require significant rendering time. According to Apple, Motion will work with After Effects plug-ins, which should expand its appeal in professional circles.

SYSTEMS MATTER

Motion reportedly does most of its mojo in real time. At the NAB demo, an Apple rep edited the parameters of elements with an animation playing onscreen, and the changes occurred immediately. We were impressed, but we wonder how well this will work once layers and elements build up. Motion's voracious resource appetite is apparent in Apple's 867MHz CPU requirement and recommended 2GB or more of RAM (512MB is the minimum). After Effects runs well on far less

powerful systems: Adobe recommends 256MB or more RAM, but the minimum is 128MB. And although After Effects doesn't offer across-the-board real-time performance, savvy animators preview work in a sub-sampled, lower-quality mode, and at smaller display sizes. Motion also requires a high-powered video card, such as ATI's 256MB Radeon 9800 Pro Mac Special Edition (p51), while After Effects works with any 24-bit color display card (an OpenGL card will speed things up but isn't required). Still, until we test these apps head-to-head, we can't compare their performance.

KEYING IS KEY

Keying tools, or keyers, which control and isolate objects in an animation, are critical considerations in motion graphics. After Effects Pro ships with Keylight, an awesome keyer that makes it a snap to isolate and mask objects filmed on a greenscreen background. But the much-cheaper Motion includes the popular PrimatteRT, a workhorse in the compositing arena. Special effects are also important, and Motion is no slouch: Its particle effects system makes After Effects' Particle Playground look like a Lite Brite toy—well, maybe not that tacky, but you get the idea. What's more, in Motion you can easily apply complex behaviors to elements and their surroundings at an object level by choosing them from a pop-up menu—cool, but not as flexible as After Effects' Adjustment Layers, which with the help of Expressions can control elements and behaviors at the individual pixel level.

We predict that current After Effects pros will consider Motion an additional production resource and that creative types starting out in Motion will turn to After Effects once they hit the former's limitations—scripting and automation functions, for example, are not likely to find their way into Motion until version 2 or perhaps even 3. Still, the combination of Motion and Final Cut Pro will deliver 90 percent of what most video production requires and will certainly provide ammo for lots of cool animated DVD menus and titling effects. Regardless of the weather, it's a hot time for making things move on your Mac.—David Biedny

NEW STUFF



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\$3,000 (ESP), www.epson.com
Available: Fall

As the cliché goes, this is not your father's camera—but if he owned a 1950s-era rangefinder camera, Epson's 6.1-megapixel R-D1 would look familiar. With its traditional 1x viewfinder and Leica L- and M-mount lens compatibility, the R-D1 is the first rangefinder-style digital camera—it's also the first camera Epson's released stateside since the late 90s.

▶ SPEED FOR NEED

Small Tree 10 Gigabit Ethernet Card
\$4,770, www.small-tree.com
Available: Now

Musicians, videographers, and other digital-content creators know there's no such thing as too much bandwidth. Gigabit Ethernet was a good start, but 10 Gig Ethernet's theoretical throughput of 1,250 MBps is much better. But can your network handle it?

▶ 5GB ANYWHERE

Seagate USB2 Pocket Hard Drive
Price TBA, www.seagate.com
Available: September
Inside this smaller-than-a-hockey-puck case is Seagate's new 1-inch ST1 hard drive, equipped with the company's RunOn anti-skip technology. Look for this bus-powered USB 2.0 model (the cable rolls up inside the case) later this fall in 5GB and possibly 2.5GB capacities.
This little puck can hold 5 gigs.



IMAGE COURTESY OF SEAGATE

DROOLWORTHY

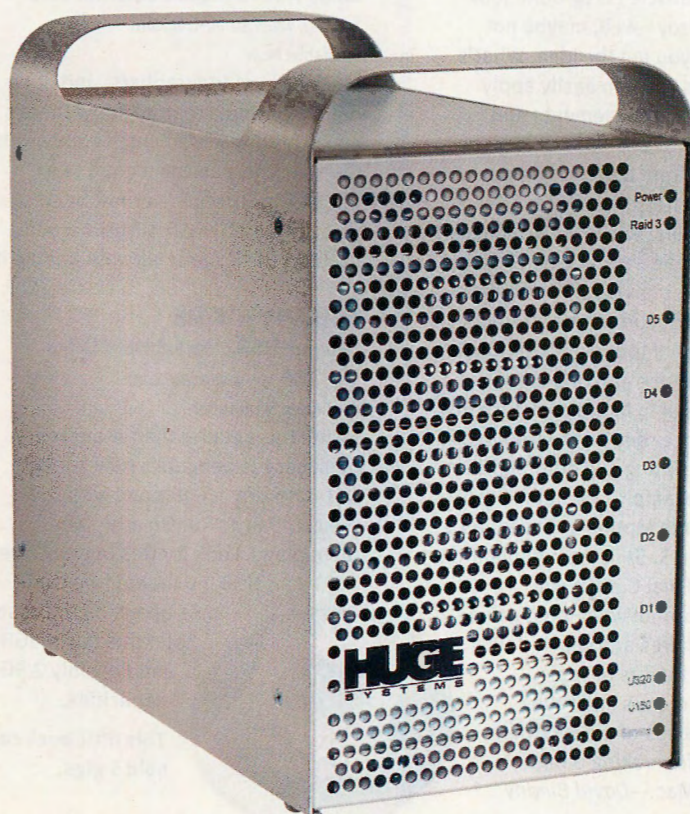
Sexy Stuff We Can't Wait to Get Our Mitts On

Red, Hot Camera →

Olympus and Ferrari have teamed up to create the **Ferrari Digital Model 2004** (\$699, www.olympusamerica.com), a 3.2-megapixel camera in the familiar Ferrari red, accented with panels of the same carbon-fiber material Ferrari uses in its Formula 1 racing cars. The camera's 210,000-pixel, 2.5-inch LCD monitor is designed for easy viewing in daylight, and its multifunction USB docking station includes an AV-output port.



IMAGE COURTESY OF OLYMPUS



← Imitation Is the Sincerest Form of Flattery

No, this isn't a Power Mac G5 mini-tower, it's Huge Systems' **MediaVault U320-R Max Disk Array** (\$3,359 to \$5,949, www.hugesystems.com). According to Huge Systems, when this five-drive RAID array is connected to a Power Mac via an Ultra320 SCSI PCI card, it can sustain 200 MBps throughput when running in its HDT (High Definition Turbo) mode. The U320-R comes in capacities of 600MB to 1.25TB.

PHOTOGRAPH BY SAMANTHA BERG

ExpertUser

JOSEPH O. HOLMES

PHOTOBLOGGING

The Web finally has a place for the hundreds of digital photos I shoot every day—the photoblog.

A photoblog is like a Weblog (aka blog), except that you post photographs rather than diary-like commentary. The daily pressure of feeding hundreds of photo-hungry visitors sharpened my photography skills, made me look at the world in a new way, and even got me my first gallery exhibit.

Starting a photoblog is easy. You don't even need a digital camera; many terrific photoblogs consist of scanned prints from film cameras. You do need some space on a Web server. At about 80KB per 640-by-480-pixel shot, you can fit more than 100 pictures on the free 10MB of Web space offered by ISPs such as EarthLink (www.earthlink.net) or buy services such as PowWeb (<http://powweb.com>) that offer a gig of space for around \$8 a month. Although there

are several free blogging software choices. Blogger (www.blogger.com), is the easiest to use. You can use either Blogger's templates or your own HTML to design your site, and then create each day's entry by uploading your pictures via FTP.

If you want more flexibility and features than Blogger offers, check out Movable Type (www.movabletype.org). Movable Type is more complex than Blogger—for example, it requires that you install Perl scripts on your server.

Photobloggers are a competitive but friendly bunch. I find plenty of help by corresponding with photobloggers I admire and by posting questions on the Movable Type and Blogger forums.

Once you launch your photoblog, I suggest that you join L. Brandon



Joe loves his 1959 Leica M3, but finds it easier to use his Nikon D70 for his photoblog.

Stone's Photoblogs.org (<http://photoblogs.org>). To keep things lively, Stone set up a ranking system in two categories based on member votes: Hot Photoblogs and Top 100 Photoblogs. To climb the rankings and thereby gain more exposure to your work,

add comments about other photoblogs, pick photoblogs other than your own as favorites, and be generous with advice and help—what goes around, comes around! Most of all, have fun. After all, the whole idea is to share your vision with the world—you can check out my vision at <http://joesnyc.streetnine.com>.

NOTE

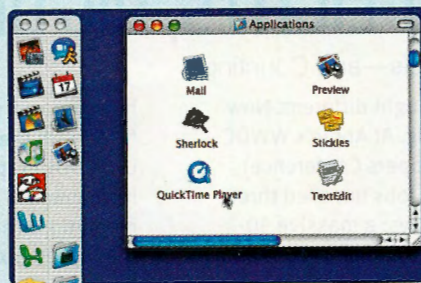
Find more photoblog resources and some of Joe's favorite blogs at www.macaddict.com/users.

PHOTOGRAPH BY SOPHIA BENNETT HOLMES

SHAREWARE PICK OF THE MONTH

Yellow Button www.yellowbutton.com \$19.95

If your Mac OS X Dock is so crowded with tiny icons that it takes you more than a few seconds to find the one you want, expand your quick-access real estate using Yellow Button. Yellow Button gives you a fresh launch palette that holds up to 600 files, folders, applications, and drives, giving your Dock a little breathing room. Here are a few tips on how to use it.—Andrew Tokuda



Yellow Button gives your Dock a break by providing handy additional icon-storage space.



1 Drag a file, folder, application, or drive to an empty square in the Yellow Button palette to store it.



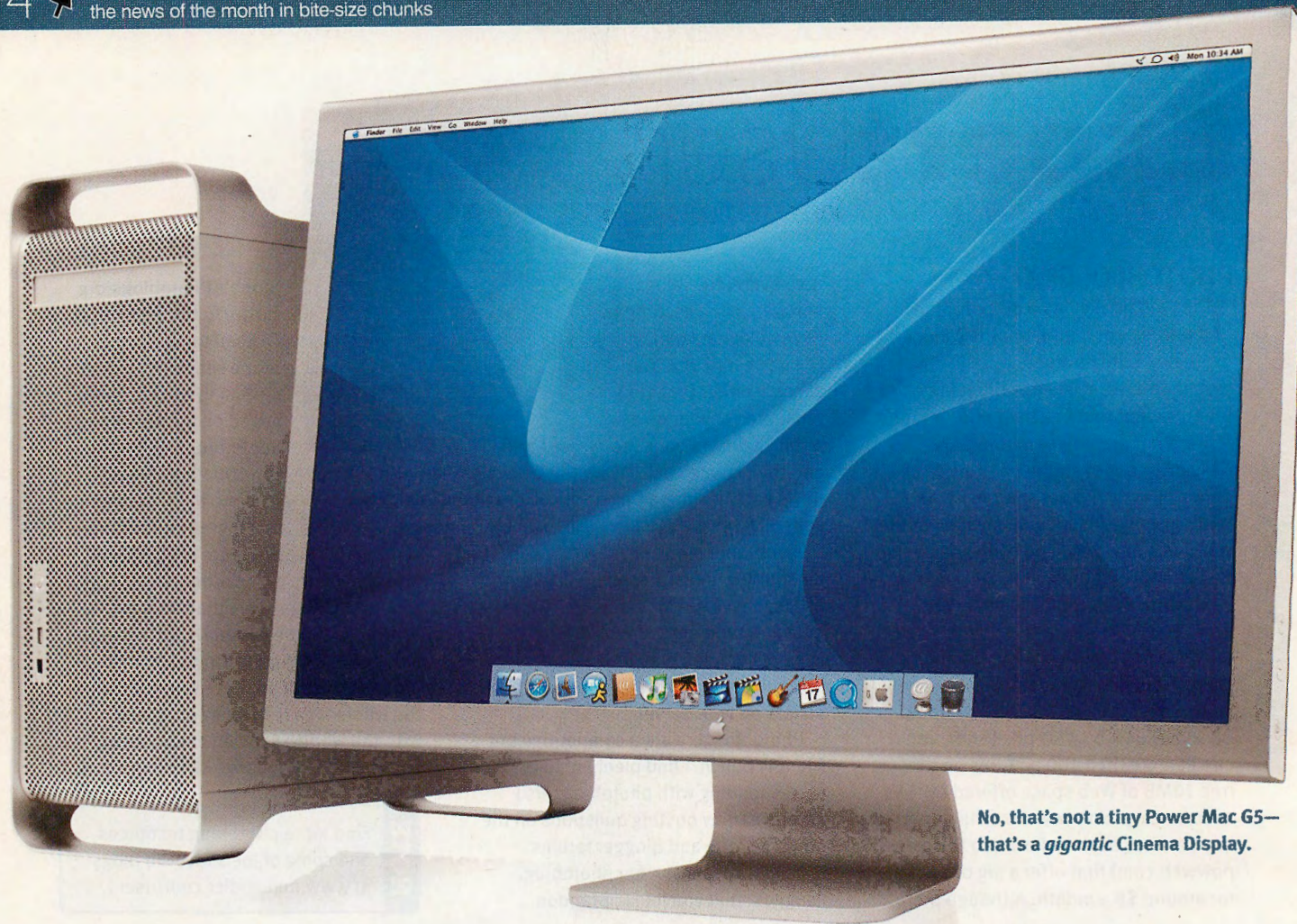
2 Use the Command key to see an icon's file path.



3 Click an application or file icon to open it, or Control-click an application or file icon to highlight that item's original location in the Finder or to delete the icon from the palette.



4 Control-click a folder to show its contents.



No, that's not a tiny Power Mac G5—
that's a *gigantic* Cinema Display.

BRIGHT LIGHTS, BIG DISPLAYS

Four Million Pixels—and Counting

First, Apple thought different. Now it's thinking big. At Apple's WWDC (Worldwide Developers Conference) in late June, Steve Jobs unveiled three new Cinema Displays: a massive 30-inch model (\$3,299), and new 23- and 20-inch units (\$1,999 and \$1,299, respectively). All sport narrow bezels, one-piece stands, full-power, two-port USB 2.0 and FireWire 400 hubs, and Power Mac G5-style aluminum cases. While not based on the latest and greatest MVA (Multi-domain Vertical Alignment) LCD technology, during our brief encounter with preproduction models, all the displays showed impressive brightness and contrast, great color fidelity, and wide viewing angles (Apple claims 170 degrees).

The 23- and 20-inch models will connect to existing graphics cards in Power Mac G4s and G5s. The 30-incher,

however, will require a Power Mac G5 fitted with the new nVidia GeForce 6800 Ultra DDL graphics card to support its mammoth 2560-by-1600-pixel resolution. The 30-inch model displays 4,096,000 pixels—that's more than 23 times as many pixels as the original Macintosh, and over 77 percent more pixels than the 23-inch Cinema Display. The GeForce 6800 Ultra DDL will run you an extra \$599, either as a build-to-order option for new Power Mac G5s or as a standalone package for current G5 owners. This double-wide card blocks the G5's lowest PCI slot but can support up to two 30-inch displays.

The familiar ADC cable, which has been around since the release of the Gigabit Ethernet Power Mac G4 in July of 2000, is now history. All three new Cinema Displays use industry-standard DVI connections and ship with a cable

that connects to one port on the display, then splits into individual DVI, FireWire 400, USB 2.0, and power cables for connection to your Power Mac—or PC—and the supplied power brick.

You can mount each display either on articulating arms or directly onto walls using Apple's optional Cinema Display VESA (Video Electronic Standard Association) Mount Adapter Kit (\$29, www.apple.com). Other options available from Apple's online and real-world stores include Belkin's ADC-to-DVI connector cable (\$29), Kensington's Slim Kevlar MicroSaver Lock for antitheft protection (\$39.95), and a new magnetic iSight mount that's included with the iSight Accessory Kit (\$29) and in the box with new iSights that ship with the 23- and 20-inch models. The 30-inch Cinema Display is scheduled to ship in August.—John Poultney

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Microsoft®


Your potential. Our passion.™



Get in touch with your inner suit.

Remain a free thinker while the other you gains a reputation as a serious go-getter. Microsoft® Office 2004 for Mac has intelligent new features that help you – or rather, the other you – keep tabs on every project, every e-mail, and every note. A smarter way to work. A smarter new Office. Go to officeformac.com for a free trial.



 PowerPoint  Entourage  Word  Excel

Microsoft®
Office:mac
2004

RISE OF NATIONS REWRITES HISTORY

Rise of Nations combines traditional turn-based strategy with the fast-paced action of real-time strategy—think marriage between Age of Empires and Civilization. A national border defines where your influence ends, but you can expand your territory by developing new cities and towns. You win the game by building up military might (weapons include everything from slingshots to stealth bombers) and by wielding economic power based on your nation's resources.

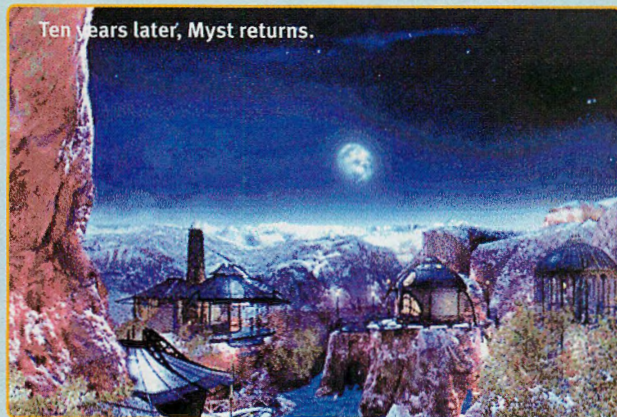
Unlike other historical RTS games, Rise of Nations allows you to play through eight ages of time—from the Ancient Age to the Information Age—covering 6,000 years of history. Choose from among 18 nations, and experience their unique histories as you play the nonlinear single-player Conquer the World Campaign, or battle with up to eight players online or via a LAN connection.

Rise of Nations	
Price	\$49.99
Available	Q3
MacSoft	
www.macsoftgames.com	



Warfare gets a lot more fun with the invention of gunpowder.

Ten years later, Myst returns.



MYST IV GETS BACK TO ITS ROOTS

Welcome back to the visually inspiring world of Myst. Ten years have passed since the release of Myst III: Exile, and now you can once again solve puzzles to uncover the secrets of a very mysterious family. Environments in Myst IV range from remote forests inhabited by plants and animals (such as a kangaroo-rabbit jungle creature) to human civilization. This time, you are equipped with both a camera for taking photos and a pendant for viewing past events. Unlike the fully 3D world of Uru, Myst IV returns to its legacy of prerendered backgrounds and integrated video panels, creating the illusion of living settings instead of static backgrounds.

Myst IV Revelation	
Price	\$39.99
Available	Fall 2004
UbiSoft	
www.ubi.com/us	

FREE XBOX TUNNELING APP FOR MAC OS X

Aquaduct fools system-link games, such as Halo and MechAssault, into believing that you are playing on a Local Area Network when you hook up with players over the Internet. To use Aquaduct, you need an Xbox, a system-link game, a broadband connection, and a router or hub.

Aquaduct	
Price	Free
Available	Now
Postpose	
www.postpose.com	

SONY TO DEBUG EVERQUEST FOR MAC

Mac addicts have been playing EverQuest for a year now with little help from Sony Online Entertainment, finding ways around missing content, and creating their own patches. But now there's light at the end of the dungeon. SOE is set to hire a Mac developer to supply ongoing tech support. Check out EQmac.com for more info.

TIPS: TRON 2.0 Greetings, Programs!

Being the only User in a world of programs can be tough. Try out these strategies to elude the Kernel and not panic.

The Disc is the only weapon that does not use energy. Combined with Power Block, it can deflect enemy discs and damage them.

Core dumps dropped by enemies will vanish over time—and so will their permissions or subroutines. Pick them up as soon as you can.

Spend upgrade points primarily on Health, Energy, and Weapon Efficiency. Porting, Downloading, and Disinfecting aren't exactly fun, but they keep you regular.

 Where do you want to take your music?

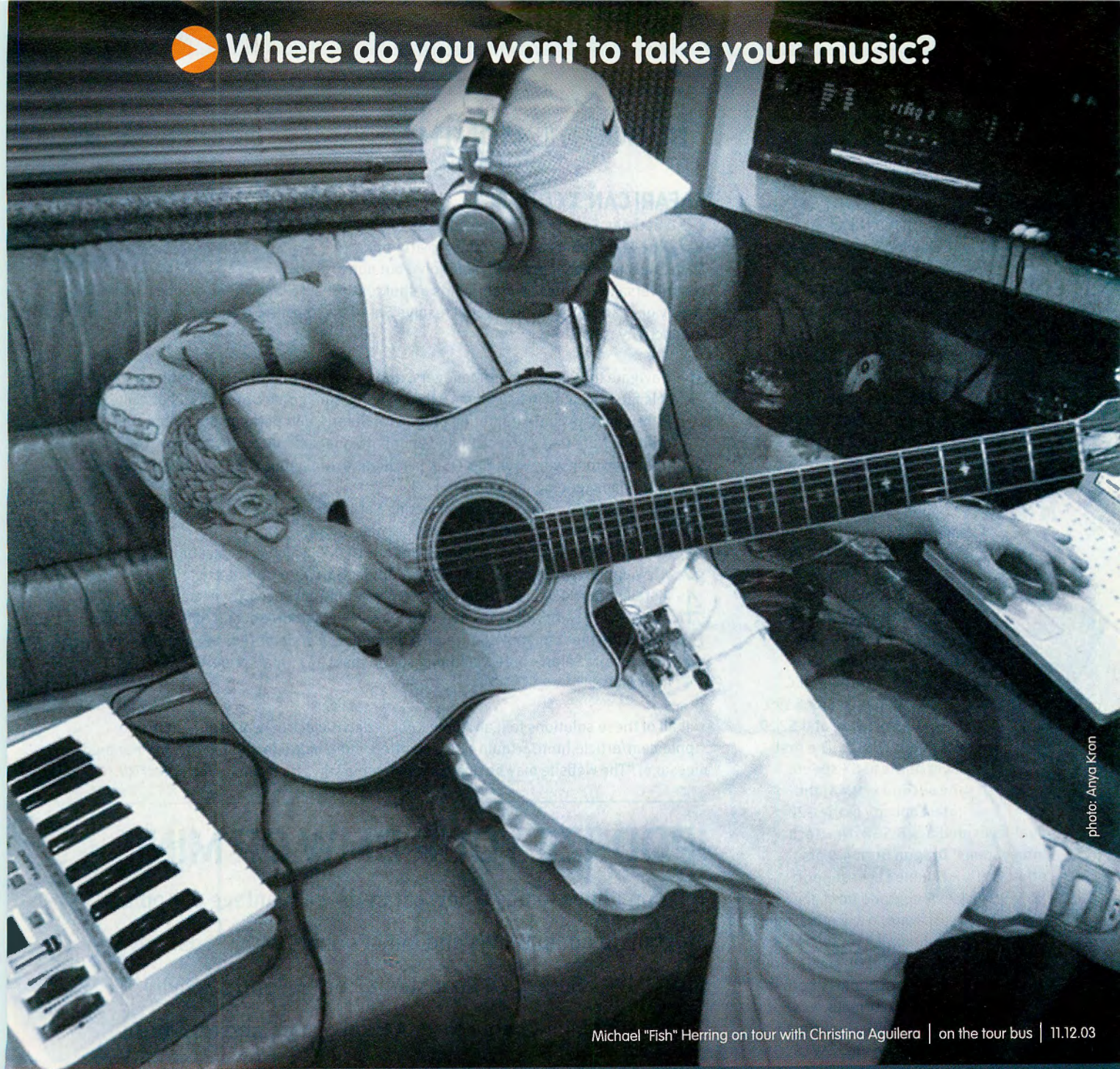


photo: Anya Kron

Michael "Fish" Herring on tour with Christina Aguilera | on the tour bus | 11.12.03



Studiophile DX4
professional desktop audio
monitoring system



Nova
large-capsule studio
condenser microphone



MobilePre USB
USB bus-powered preamp
and audio interface



Keystation 49e
49-key USB MIDI controller

MacUser
Editor's Choice Award



ProSessions
top-quality loops and grooves

Pros rely on software and M-Audio gear to make music on their computers anywhere, anytime. Now, Apple GarageBand puts that same power within your reach. Just add affordable M-Audio hardware like one of our high-resolution audio interfaces and your computer becomes a complete studio capable of everything from jamming by yourself to recording entire CDs. Take your music to the next level at your local M-Audio dealer or Apple retailer today.

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audio/MIDI interfaces | USB MIDI controllers | studio monitors | microphones | preamps | sound libraries | music software

www.m-audio.com

What's New STORAGE

Seagate (www.seagate.com) announced its first 1-inch drives, the **2.5GB and 5GB ST1**, with RunOn antiskip technology. The company also announced **60GB, 80GB, and 100GB 2.5-inch drives** (available at 5,400 rpm in Q3 this year and at 7,200 rpm in Q4); the **400GB Barracuda 7200.8** (Q3); and the **500GB NL35** (Q4). An **0.85-inch, 2GB drive** from Toshiba (www.toshiba.com) will ship later this year; the company also announced a **100GB 2.5-inch drive**.

LaCie (www.lacie.com) now offers an external **8x d2 DVD±RW Double Layer** drive with an NEC mechanism for \$199

without software and \$229 with Captv DVD2. The first layer burns at 8X speed, the second at 2.4X; the total capacity of the \$20

dual-layer media is 8.5GB. **NewTech Infosystems' Dragon Burn 4.0** also offers DVD+R Double Layer support (\$49.95 or \$9.99 upgrade from any DVD-burning software, www.ntius.com). Lite-On IT (www.liteonit.com.tw) is also shipping an **8X DVD Dual DL** single-sided double-layer disc that supports both the DVD-RW and DVD+RW formats, as well as a dual-format **12X DVD Dual** single-layer burner. At 16X, the new **DW1600A 16x DVD+R** from BenQ (www.benq.com) may have reached the DVD-burning limit, according to Tor Magne of cdfreaks.com (www.cdfreaks.com/article/145).

SubRosaSoft (www.subrosasoft.com) is shipping **VolumeWorks 1.1**, which allows you to resize partitions without reformatting your drive (\$49.95 download or \$59.95 with bootable CD). Mobile Fidelity Sound Lab (<http://mofi.com>) introduced **UltraDisc CD-R 24KT Gold** CD-Rs (1X to 12X) (\$3 each, \$14.99 for 5, \$49.99 for 25, or \$95 for 50) with a claimed lifespan of 300 years; standard CD-Rs are limited to 20. —Rik Myslewski

BUG OF THE MONTH

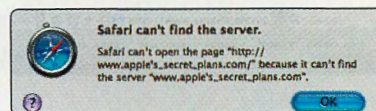
MacFixIt.com

SAFARI CAN'T CONNECT

Sometimes Safari can't at first connect to a Web site—although it can after multiple attempts. There are a number of potential solutions, but none are universal. Give these workarounds a shot, one by one, and with any luck you'll resolve Safari's connectivity issues.

- 1 Navigate to `/Library/InputManagers`, and delete the file `SIMBL` (sometimes this file is located in `user name/Library/InputManagers`). Doing so will disable PithHelmet—a content-filtering plug-in for Safari—and perhaps other shareware utilities. Note that if you can't find an `InputManagers` folder on your Mac, there's nothing wrong with your Mac OS X installation—an application that requires an `InputManager` plug-in creates it.
- 2 Empty Safari's cache either by selecting `Safari > Empty Cache` or by deleting the folder located at `user name/Library/Caches/Safari`.
- 3 Run the latest Mac OS X Combined Update 10.3.x, which you can obtain from www.apple.com/support—check the Popular Software Updates list.
- 4 Install SafariNoTimeout (freeware, www.versiontracker.com/dyn/moreinfo/macosx/19173), which will override Safari's default 60-second time-out setting.
- 5 Delete the file `com.apple.Safari.plist` located in `user name/Library/Preferences`, then restart Safari—note that doing so will reset any Safari preferences back to default.

If all of these solutions fail, an Apple Knowledge Base article at <http://docs.info.apple.com/article.html?artnum=151266> offers more help—including the time-honored message, "The website may be unavailable temporarily. Try again later." —MacFixIt.com



If a Web site won't open, and you're positive it exists, it may be Safari's fault.

iPOD-IZE YOUR BMW OR MINI

You don't have to buy a new car to take advantage of Apple's program to equip BMWs and Mini Coopers with iPods. Drive your BMW 3 Series, Z4 Roadster, X3 or X5 Sports Activity Vehicles, or Mini Cooper to your local dealer, and for \$149 plus a one-hour installation service fee you can get an adapter cable installed in your glove compartment. From there, just plug in your iPod, use your existing car-stereo controls to access up to five playlists, and hit the open road listening to your favorite tunes.



IMAGE COURTESY OF SEAGATE

IMAGE COURTESY OF APPLE

PROFESSIONAL RESULTS DEPEND ON PROFESSIONAL TOOLS.

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YOUR WORK IS ONLY AS GOOD AS THE TOOLS YOU USE. THE LACIE d2 DVD±RW DRIVE, WITH DOUBLE LAYER RECORDING, LETS YOU RELIABLY BURN, STORE AND SHARE UP TO 8.5GB OF DIGITAL CONTENT. AVAILABLE WITH TOAST TITANIUM RECORDING SOFTWARE, YOU'LL HAVE THE RIGHT TOOLS TO SHOWCASE YOUR CREATIONS—AND TURN SOME HEADS. THE LACIE d2 DVD±RW DRIVE. THE PROFESSIONAL CHOICE. WWW.LACIE.COM

INSIDE THE BELLY OF THE BEAST

The next version of Mac OS X—Tiger—will include radical new technologies that'll revolutionize the way you use your Mac.

As every Mac addict who doesn't live in a cave already knows, Apple has announced that it will release the next version of Mac OS X, Tiger, in the first half of next year. As a dedicated devotee of All Things Mac, you dug through all the specs and drooled over the eye candy on Apple's Tiger Web site (www.apple.com/macosx/tiger)—but because you haven't been able to get your hands on a copy, you probably find yourself asking, "What does all this add up to?" We're here with the answer: a lot. A whole lot.

Lurking inside Tiger is a litter of new technologies that will endow your Mac with



a ground-breaking new way of searching for and organizing the contents of your hard drive, a powerful set of graphics and video capabilities that will enable developers to create mouth-watering visual effects, an easy way to create and manage tiny—but useful—utilities called *widgets*, a system-level technology that works with .Mac to keep all your devices in sync, a set of upgrades to Mac OS X's Unix kernel that points the way to an even more-powerful future, and more. A whole lot more.

So join us on a journey inside the belly of the operating system that will make the Mac's 21st year—2005—a true coming of age.

BY RIK MYSLEWSKI

SPOTLIGHT

Tiger's new search technology, Spotlight, has the potential to radically change the way you interact with your Mac—but only if Apple can make it smart enough and easy enough to use.

The two main concepts behind Spotlight are simple: First, instead of finding files based on name, and creation or modification date, like good ol' Command-F does, Spotlight aggregates a wealth of information, including the contents of a file and its *metadata* (detailed information about the file). Second, instead of waiting for a search request, Spotlight

builds—in the background, naturally—a database of all relevant information, ready to respond instantly to your search request.

Spotlight can find a far wider variety of info than today's Finder can. For example, enter *kielbasa* in the search field, and you get the following: a well-organized list that includes your "Kielbasa Recipes" Word document, your household budget containing a kielbasa line item, an iCal reminder to buy kielbasa for your annual Polish Constitution Day bash, your Address Book entry for Stash's Kielbasa Hut (plus a PDF of Stash's take-out menu), and both the email from Uncle Casimir reminding you to buy sheep intestines for his upcoming kielbasa-stuffing party and the enthusiastic

THE TOP X

Tiger's Packed with New Features—Some More Impressive than Others.

Apple claims that Tiger will include "more than 150 breakthrough new features." Although that number is more than a bit squishy, there's no denying there's a lot to like in Tiger. Here's a countdown of our top ten favorite features:

X. Spoken Interface Option Although we have visually impaired colleagues for whom a fully spoken and audibly cued interface will rank number one in "breakthrough new features," Tiger's VoiceOver technology will have limited use for most of us. Still, the more folks that can easily use a Mac, the merrier—even if your vision is 20/20, you should agree that VoiceOver deserves its place on our Top X list.

IX. Visual AppleScript Coding Just like VoiceOver, Tiger's easy-to-use, point-and-click AppleScript coding app, Automator, will appeal to only a minority of Mac users. But if you've been chary of venturing into AppleScript automation, you no longer have an excuse: Automator makes creating time-saving and tedium-banishing AppleScripts a snap.

VIII. Simple Syncing Through .Mac If you're struggling to keep files, calendars, and contact info synchronized between your home and office Macs, Tiger's .Mac Sync technology should be a godsend. The application iSync, by the way, will find itself on the dust heap of history, since this new schedulable syncing technology sits at the system level, waiting to sync any and all synchable apps. At press time, Apple plans to require that you have a .Mac account to use this feature.

VII. Easy-Access Mini-Apps OK, so the tiny *widget* apps in Tiger's Dashboard—stock trackers, sticky notes, clocks and timers, puzzles, and more—won't change the world, but the fact that they zip onto and off of your display a la *Exposé* is pretty darn cool. Plus, since they're based on HTML, CSS (cascading style sheets), and JavaScript (little Web pages, in effect) they're hella easy to write. May a thousand widgets bloom!

VI. Improved QuickTime Performance If you've ever seen movies played in '91's original QuickTime 1.0, you'll find Tiger's QuickTime quality hard to believe. Its codec—H.264/AVC (Advanced Video Compression), ratified last year by the MPEG Licensing Association—can play HD-quality video at current DVD-player bandwidth and can scale all the way down for use in 3G cell phones.

V. News Feeds in Safari Webmasters worldwide use RSS (really simple syndication) technology to feed news, info, and opinions onto the Web. Safari RSS will detect these feeds, tell you when you've happened upon an RSS-enabled site, and format the content as an ad-free list with summaries of a user-selectable size. You'll also be able to search multiple feeds by keywords and bookmark searches that update automatically.

IV. Multiperson Conferencing The iChat AV of '04 will be remembered as fondly as QuickTime of '91—limited in its abilities, kinda-sorta clunky-looking, but amazing in its potential. Tiger's leaps closer to iChat's full potential with crisp H.264/AVC encoding, up to 10 concurrent audio chatters, and up to four concurrent videoconferencers.

III. Unix Enhancements Sure, Tiger's 64-bit memory access is headline-grabbing, but unless you're working with mammoth data sets, it won't matter much to you. What will matter—a lot—is that Apple is tweaking Tiger's Unix kernel for screaming multiprocessor performance, and upgrading a whole host of networking and administrative services. For newbie and SysAdmin alike, Tiger will be one awesome cat.

II. Imaging and Video Tools Tiger's new system-level imaging and video capabilities, Core Image and Core Video, will allow developers to easily access a host of image- and video-processing capabilities deep within Tiger. What's more, your Mac's graphics card will power these filters, transitions, and other effects, freeing the processor from pixel pushing. You think your Mac is visually impressive today? Well, hold onto your eyeballs.

I. Fast, Thorough Searching As we move into a world where TB means a thousand gigabytes and not a dread disease, Command-F searches just don't cut it anymore—there's just too much data, too many files. Tiger's Spotlight search technology focuses on *information* rather than merely file names, and uses a file's contents, metadata, and time-based relevance to present a smart and detailed search summary—and to change forever the way you work with your Mac.



email you sent in response.

In addition to supporting standard metadata types such as EXIF (exchangeable image file format, a metadata format used mostly for digicam JPEGs), Apple has given developers the info they need to structure their files' metadata so Spotlight can read it and aggregate it into its database. Details were not available at press time, but we can imagine our search turning up a Photoshop file with *kielbasa* as a keyword in its ITPC (International Press Telecommunications Council) metadata and a saved Web page with *kielbasa* in its *meta name="keywords"* list.



Enter a search term in Spotlight's drop-down menu, and you get a list of all matching elements—files, bookmarks, images, contacts, movies, music, and more.

You can save search criteria, and Spotlight will automatically update the results. Tiger will use this technology to create Smart Mailboxes for Mail and Smart Groups for Address Book, but since the power of Spotlight searches is now available to developers, expect non-Apple apps to sprout smart stuff too.

Spotlight sounds great on paper, but database performance is critical, especially the data required for finding files by content—an abysmal function in the current

Finder's implementation. Also, the sheer comprehensiveness of Spotlight's searches may make multilevel search-narrowing the rule rather than the exception. Finally, it remains to be seen whether users will abandon their file-organization and searching habits, and embrace Spotlight—but with the current trend toward huge file collections, Spotlight may be the best answer to the age-old question, "Where the %\$#@! did I put that file?"

DASHBOARD

If you've ever used Konfabulator (www.konfabulator.com), you know the concept behind Tiger's Dashboard: a collection of one-purpose *widgets* such as calculators, clocks, and stock trackers.

Konfabulator and Dashboard have quite a bit in common, but there are also some important differences. On the birds-of-a-feather side, both sets of widgets have compact, elegantly designed interfaces; both can zip on and off your desktop with the touch of a hot key (Konfabulator requires the Konsposé function introduced in version 1.7); and the design of both makes creating widgets relatively simple.

The differences are under the hood. Konfabulator's widgets run in that company's \$25 JavaScript runtime engine and use a custom XML format to define user interfaces. Dashboard widgets also use JavaScript but are based on Mac OS X's WebCore technology—they are, in essence, lil' Web pages. Although Konfabulator's widgets are easy to create (see "Make Widgets with Konfabulator," Jan/04, p74), Dashboard's should be easier.

For more info, check out John Gruber's excellent—if one-sided—article "Dashboard vs. Konfabulator" (http://daringfireball.net/2004/06/dashboard_vs_konfabulator), and Konfabulator developer Arlo Rose's equally one-sided thoughts at www.geekpatrol.ca/archives/2004/06/28/specialpatrolarlo.php.

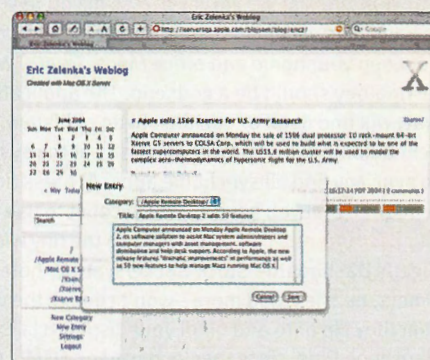
Tiger Server

The Desktop Kitty's Big Brother Has Muscle

Server software has traditionally been complex and difficult to administer. Apple's Tiger Server, scheduled to ship along with the Tiger OS in the first half of next year, plans to stand that tradition on its head. Here are a few highlights:

- A built-in Weblog server, based on the Blojsom open source project (<http://blojsom.sf.net>), will provide a one-click blog launch and easy set-up. Bulletproof Kerberos authentication (<http://web.mit.edu/kerberos/www>) and LDAP integration are also available out of the box.
- An iChat server will work with Apple's iChat to keep conferencing private. Also Kerberos-protected, iChat server will play nicely with open source Jabber clients (www.jabber.org) running on Windows and Linux boxes, Blackberries, and more.
- Xgrid—Apple's node-clustering software (www.apple.com/acg/xgrid)—will also be built-in and will allow as many as 128 Macs to simultaneously contribute to processor-intensive operations.

Like its desktop litter-mate, Tiger Server will be fully 64-bit compliant, allowing for vast computational data sets and databases. Also, like Tiger, Apple has not announced the system requirements for Tiger Server—but don't expect it to run on your old beige Power Mac G3. As for price: A 10-client edition will retail for \$499; an unlimited client edition will cost you \$999.



With Tiger Server, launching a Weblog will be a one-click task; Apple promises that configuration will be equally easy.

iCHAT AV

iChat AV in Tiger will overcome the biggest limitation of the current version: the inability to audioconference or videoconference with multiple users. Up to 10 users will be able to simultaneously audioconference through an interface with individual volume indicators that visually help you determine who is talking. For videoconferences, the new iChat will be able to display up to four simultaneous users within a stunning 3D interface, enhanced by Core Image to include subtle reflections of the participants' images on a shiny black virtual desk.



CORE IMAGE AND CORE VIDEO

Core Image (Apple's umbrella term for Core Image and Core Video) is a set of image-processing filters and transitions that developers can access with a few simple lines of code—most of us will only see the effects of Core Image. Today, only the most savvy developers can write the complex pixel-level image-processing code found in apps such as Photoshop. When Core Image ships with Tiger, however, it will pack an arsenal of pixel mojo, ready for use by any developer who wants to apply effects to digital images or video. As of this writing, Apple has announced 62 Core Image filters and transitions, including the familiar Gaussian blur, edge detection, dissolves and more. It has also announced that over 100 will be available when Tiger ships. All of these filters and transitions are *nondestructive*, meaning they don't affect the original data, just the copy of it in RAM—and you can stack them, one upon another. How they're rendered and saved into a final file is up to the developer.

And Core Image's filters and transitions are *fast*, thanks to the fact that Core Image bypasses your Mac's microprocessor, or *central processing unit* (CPU), and instead gets its work done in the *graphics processing unit* (GPU) on your Mac's graphics card. The GPU is designed for pixel processing—why not let it shoulder the burden of driving your display while your CPU gets on with other work? A top-flight GPU can process Core Image filters and transitions at up to 1 billion floating-point operations per second—that's swift enough for real-time operations on complex images. And if your GPU isn't up to the task, Core Image is smart enough to offload some of the processing back to the CPU.

Just as audio-app developers who use Mac OS X's existing Core Audio capabilities to create audio apps and plug-ins, graphic and video developers will need to write less code to add complex graphics capabilities and effects to their software. Also, less code means nimbler, faster applications, and GPU-based processing means those faster apps will run even faster. Core Image, therefore, is a win-win-win technology: Less work will result in more-capable apps with faster performance.

.MAC SYNC

Tiger's new syncing technology, .Mac Sync, dispenses with the iSync app and makes syncing a transparent background activity, scheduled through an app's preferences or accessible using the new Sync Manager utility. In Tiger, you'll be able to synchronize Address Book contacts and iCal calendars, as well as Dock, Exposé, and Desktop and Screensaver settings. At press time, Apple's plans to require that you have a .Mac membership (\$99.95 per year, www.mac.com) before you can take advantage of this technology. Whether it will remove this limitation in the shipping version of Tiger to allow, say,

the synchronization of Macs on a network, Apple isn't saying—when asked, an Apple spokesperson replied only that "The sync technology in the...Developer Preview release works through .Mac."

Apple is, however, opening up the .Mac Sync technology to developers. For example, Microsoft could enable Word to allow you to sync your preferences among multiple Macs, or Adobe could enable the syncing of Photoshop Workspaces among multiple Macs. As with Core Image, the extension of .Mac Sync to third-party apps depends upon third-party developers: To take advantage of .Mac Sync, third-party developers will have to add .Mac Sync capabilities to their applications using Apple's SDK.

SYSTEM REQUIREMENTS

So, how powerful a Mac will you need to run Tiger? For now, Apple isn't saying—and since the new OS's release might be nearly a year away, we can't fault it for its caution. There's a lot more work to do on Tiger, and code-optimization is a painstakingly difficult process. However, we project that Tiger

users will need serious horsepower to take advantage of all of the OS has to offer—especially the fast GPUs needed for full implementation of Core Image.

But all in all, there are enough technological enhancements in the belly of this beast to keep developers busy for some time—and to keep Mac addicts smiling as Tiger-enhanced applications roll out.





EPSON

The Great Bargain Photo- Printer Hunt

BY NIKO COUCOUVANIS
PHOTOGRAPHY BY SAMANTHA BERG



It costs surprisingly little to print great photos— if you pick your printer wisely.

The perfect bargain photo printer: Does it really exist, or is searching for one a digital-lifestyle wild goose chase?

In the early days of Mac OS X—back when printer drivers seemed perpetually unreleased, incompatible, or just plain wonky—printing high-quality color photos from a Mac was a frustrating endeavor. Today, however, you can get a darn good photo printer for a hundred bucks—and a perfectly decent one for even less.

But you can also waste your money on a dog. To separate the purebreds from the mutts, we got our hands on 11 photo printers ranging in price from \$79.99 to \$399—and after testing the bejesus out of them, we discovered that the sweet spot for quality and price is less expensive than you might think.



The Competitors

We divided our 11 competitors into four price groups. From down in the bargain basement come the HP Photosmart 7260 (www.hp.com) and Lexmark Z715 (www.lexmark.com), both with a suggested retail price of \$79.99. This is low- to no-frills territory, devoid of individual-color ink tanks and LCD preview screens, so we were surprised to find media-card slots on the Photosmart 7260. Both of these printers placed low or last in all of our print-quality tests—but the competition between them was stiff, and both are capable of producing decent prints.

Just under a hundred bucks proved to be the price-performance sweet spot. In this group are the Canon i560 (\$89.99, www.canon.com), Epson Stylus Photo R200 (\$99, www.epson.com), and Lexmark Z816 (\$99.99). The extra cash gets you frills such as individual-color ink tanks and USB camera ports for Mac-free printing (on the i560 and R200), and on the Epson R200, support for printing directly to printable CD and DVD discs.

Moving a bit further up the budget-printer food chain are the Canon i860 (\$149.99), Epson Stylus Photo R300 (\$179), and HP Photosmart 7660 (\$129.99) and Photosmart 7760 (\$179.99). Once you're in this range, you face the timeless trade-off of more frills versus better quality. If printing on CDs is your frill, it's a no-brainer: You'll tolerate the R300's slower printing. But if you value superior image quality and faster print speeds, the i860 rules. The Photosmart 7660, however, provides the worst of both worlds: It has a USB port that only works with certain members of HP's Photosmart camera line; it provides media-card slots, but only a skimpy text readout; and although it was faster than the R300, the

Photosmart 7660 took third place in image quality for its class—albeit a close third.

Budget is, of course, a relative term. To the Sultan of Brunei, for example, the \$399 Epson Stylus Photo R800 is not even a blip on the fiscal radar. To most of us, though, the R800 and the Canon i900D (\$239.99) are a bit of a splurge. The i900D is a printer's printer, ranking first in our image-quality tests and turning in the fastest print speeds in this category. The i900D also sports media-card slots and a color LCD for making menu selections, viewing images, and even basic image editing, as well as a camera-direct USB port (as do the Epson printers in this roundup). The pricier R800's trump card is its disc printing, a market in which Epson appears to be completely alone—but probably not lonely. Unlike the lower-end R-series printers, the R800 has no media-card slots, though it comes with a roll-paper adapter.

After rounding up all the competitors, we printed a series of detailed color and black-and-white images on each printer at default and maximum-quality settings, a full-page black-to-white gradient at maximum quality, and a text sample of various fonts and print sizes on plain media. We discovered that all the printers produced acceptable and equal text quality, so we didn't use that as a factor in our rankings—these are photo printers, after all.

All the while we kept detailed notes on each printer's ease of use—or, in the case of the HP Photosmart 7660 and 7760, their *lack* of ease of use. For each set of prints, we used the supplied ink and high-quality glossy photo media provided by each printer's manufacturer—except when testing the Lexmark Z715 and 816, with which we used the Fuji Premium Plus Inkjet Photo Paper that was supplied by Lexmark instead of their own brand of printing media. A jury of five sharp-eyed artists and editors then ranked all print samples—and, no, we didn't tell them which print had come from which printer. Read on to learn their unbiased decisions.

Just under a
hundred bucks
proved to be
the price-
performance
sweet spot.

Bargain Basement

Even the loser in this low-priced print-off is capable of producing decent prints, but the Lexmark Z715 wins for its ease of use.

Lexmark Z715 (\$79.99) ●●●●●●

Lexmark's Z715 is a four-color printer with an interesting twist: You can replace its three-color cartridge with a five-color unit for improved color accuracy and smoother gradients. In addition to printing with the standard

four-color setup, we tried the Z715 in this optional six-color mode (black being the sixth color). Though we saw improved results, for the total outlay of \$104.98 for the printer and optional cartridge, we recommend that you get a Canon i560 and a happy-hour martini instead.

The Z715's default settings made for quick and easy prints. Lexmark's auto media sensor determines which type of media is in the tray and adjusts the driver accordingly. In our tests on glossy media, however, the results were not impressive—dark overall, showing little shadow detail.

Although the Lexmark Z715 feels as flimsy as a shoebox and took more than 22 minutes to produce a letter-size photo print at top-quality settings, that print ranked a surprisingly strong fifth in our view-off of all 11 printers in this roundup.

HP Photosmart 7260 (\$79.99) ●●●●●●

The baby of HP's Photosmart line is the smallest of our contenders, and uses a relatively smart, fold-away version of the combo I/O media tray we so hated in the two more-expensive Photosmart printers. Armed with a front USB port (for HP cameras only) and a full complement of media-card slots (CompactFlash I and II, SmartMedia, Memory Stick, Secure Digital Card, MultiMediaCard—even Olympus's tiny xD-Picture Card), the 7260 can function as a Mac-independent printer. However, it lacks an LCD screen to show what you're about to print, so using media cards alone can be a bit of a crapshoot.

Installing and setting up both the Photosmart 7260's driver software and the printer itself is a straightforward process. The driver's default settings trade some speed for higher quality, though color banding and graininess abound at that setting. At the maximum DPI, banding was less apparent, but the prints lacked the fine definition, color balance, and general tastiness we expect at any printer's high-quality settings.

At the low end, we tested the Lexmark Z715 (top) and HP Photosmart 7260 (bottom). The Lexmark surprised us with its print quality.





The sweet-spot competitors include (from top to bottom) the Epson Stylus Photo R200, Canon i560, and Lexmark Z816. Kudos to Canon!

The Sweet Spot

Just under a hundred bucks gets you a lot of printer these days. The proof, of course, is in the print—and in that department, Canon's i560, with superior speed and user-friendly controls, takes top honors.



Canon i560 (\$89.99) ●●●●●●

Lacking any frills except for a USB port for direct printing from PictBridge-compatible cameras, the Canon i560 delivers where it counts: print quality. Spewing ink droplets as small as 2 picoliters—smaller droplets generally allow for crisper images, and until recently droplet sizes tended to be around 4 or 6 picoliters—the i560 uses a pigment-based black ink that produces better prints from its four individual-color ink tanks than some printers can muster with six colors. The black pigment-based ink produces a much darker shade of black than the dye-based black most affordable printers use. As might be expected, the i560 performed very well in our black-and-white tests, exhibiting none of the purple tingeing of gray that plagues many photo printers. Printing in color, the i560 ranked third among all 11 printers in the default-quality test, but dead last in one of the high-quality color tests—in the other two high-quality tests, however, it performed well.

The i560's sensible driver makes good prints nearly automatic, and the printer is as user friendly as it gets. One thing we especially like about Canon's driver software is that it doesn't enable color correction by default, as Epson's and HP's drivers do (Lexmark doesn't do this either). Although we appreciate the allure of color correction, we prefer to decide for ourselves when to mess with our photos' colors.

Epson Stylus Photo R200 (\$99) ●●●●●●

The capable Epson R200 gets bonus points for a six-color ink system that uses color-specific cartridges so you can replace them individually as needed, instead of having to replace multiple colors when only one runs dry. Despite sporting two colors more than the i560, the R200 isn't any more color-accurate—slightly less so in most cases, in fact, according to our experts' eyeballs. Both the i560 and R200, however, more than hold their own against the more-expensive printers we tested, though the R200 is one of the slowest in the lot.

If you're looking to decorate your home-burned CDs or DVDs, the Stylus Photo R series' disc-printing support sets these printers apart from the others. R-series printers come with plastic trays for feeding discs into the printer, and Epson Print CD software for designing and aligning disc art. The disc-printing process is simple, and the output is good enough that we can live with this printer's slowness and good-but-not-perfect images.

Lexmark Z816 (\$99.99) ●●●●●

Although it's capable of great results—ranking second in overall quality in one of our test images—the Lexmark Z816 ranked near the bottom overall. Its problems include severe banding, visible ink droplets, and a general lack of image definition. Pluses include an optional Photo Color ink cartridge that adds light cyan and light magenta to the standard CMYK inks and reduces the ink-droplet size from 10 picoliters to 3. When we installed the Photo Color cartridge, the Z816's print time doubled, but the print quality didn't improve as dramatically. Like the other Lexmark Z715—and frankly, like most Lexmark printers we've tested—the Z816 is flimsy and loud. Given no other options, we could make do with a Z816, but there *are* other options, so we'll take a pass.

Midrange

Once you break into the over-\$100 range, you have to make a choice between frills and image quality. In this category, Canon wins again: Its i860 delivered the most consistent image quality, the fastest print speeds, a user-friendly driver, and even a smart piggybacking caddy for 4-by-6-inch media.



Canon i860 (\$149.99) ●●●●●

We've already dubbed the Canon i860 a great printer (●●●●● *Reviews*, Feb/04, p51), and it remains an excellent choice for most consumer-level photo-printing needs. It's affordable, quick, and easy to use, and it prints great-looking photos. The i860's hidden trick is two black-ink tanks—one dye-based for text, the other a pigment-based Photo Black that really makes color photos pop. The pigment approach, which is also an option on the HP printers, keeps black-and-white tones honest. It adds depth to the black without introducing the pink and purple tones some photo printers (like Epson's) inflict in tricky gray areas.

The i860 ranked low—10th out of 11—in one of our top-quality color-image tests. That print looked fine when we scrutinized it solo, but not so great in direct comparison to other printers' output. Canon's driver provides Color Balance and Intensity sliders that make it easy to tweak no-complaints prints out of both the i560 and i860 (select Color Options from the driver's lower pull-down menu, Copies & Pages).



Representing the midrange in our roundup are (clockwise from top left) the Canon i860, Epson Stylus Photo R300, HP Photosmart 7660, and HP Photosmart 7760.

Stock Up

The Care and Feeding of Your Photo Printer

Two common printer concerns are how often you'll replace the ink and how well third-party cartridges and refill kits work. The answer to the first part depends more on how you print than on how many prints you make. At maximum print quality, any of these printers will run dry after a few dozen letter-size prints. However, you can significantly increase the yield with little to no effect on image quality by adjusting the print quality slightly downward.

As for third-party inks, we don't recommend them unless you're on an exceptionally tight budget—subpar ink can clog up your printhead. This is especially dangerous for an Epson printer, since its printhead is built into the printer. Damage an Epson printhead, and it's time to track down an Epson service center—but if it determines that a third-party ink has caused your problem, your warranty won't cover the repair. Lousy ink is not as big a problem with Lexmark and HP printers, since their printheads are on the print cartridges themselves—all you'll lose is the offending cartridge. A Canon printer's removable printhead is separate from the print cartridges, and is available from your local Canon authorized service facility or from Canon's tech-support phone center (800-652-2666). Likewise, refilling your printer's cartridges may sound nice in theory, but doing so can create a real mess, and you'll run the same bad-ink risks.

Most printer manufacturers agree with us, and strongly recommend using only ink and media expressly created for a given printer—by them, natch. Buying ink and media, however, can quickly add up to more than the printer's sticker price. Here's what you'll pay:

Ink Cartridges

Printer	Ink Color	Price per Cartridge
Canon		
i560	Black	\$13.95
	Cyan	\$11.95
	Magenta	\$11.95
	Yellow	\$11.95
i860 ¹	Photo Black	\$11.95
i900D ¹	Photo Cyan	\$11.95
	Photo Magenta	\$11.95
Epson		
Stylus Photo R200 and R300	Black	\$17.09
	Cyan	\$12.34
	Magenta	\$12.34
	Yellow	\$12.34
	Light Cyan	\$12.34
	Light Magenta	\$12.34
Stylus Photo R800	Photo Black	\$14.24
	Cyan	\$14.24
	Magenta	\$14.24
	Yellow	\$14.24
	Red	\$14.24
	Blue	\$14.24
	Matte Black	\$14.24
	Gloss Optimizer	\$14.24
HP		
Photosmart 7260, 7660, 7760	Black (56)	\$19.95
	Tri-Color (57)	\$34.99
Optional for all	Black Photo (58)	\$24.99
Lexmark		
Z715	Black	\$28.99
	Color	\$37.99
	Photo Color	\$24.99
Z816	Black	\$19.99
	Color	\$21.99

¹Required for the i860 and i900 in addition to the inks listed for the i560.

Media

Media	Size (in inches)	Number of Sheets	Price
Canon			
Photo Paper Pro	4 by 6	20	\$8.95
Photo Paper Pro	8.5 by 11	15	\$13.95
Epson			
Premium Glossy Photo Paper	4 by 6	40	\$9.99
Premium Glossy Photo Paper	8.5 by 11	20	\$14.99
HP			
Photo Paper Glossy Snapshot	4 by 6	20	\$5.99
Photo Paper Glossy	8.5 by 11	20	\$9.99
Lexmark			
Premium Glossy Photo Paper—Photo Size	4 by 6	20	\$9.99
Premium Glossy Photo Paper Letter	8.5 by 11	15	\$9.99
Fuji (for Lexmark)			
Glossy Photo Paper	4 by 6	20	\$14.99
Premium Plus Inkjet Photo Paper	8.5 by 11	20	\$10.00

Epson Stylus Photo R300 (\$179) ●●●●●

The Stylus Photo R300 is the solution for folks drooling over the Stylus Photo R200's disc-printing abilities while lamenting its lack of other amenities. The R300 packs more frills than most, including a PictBridge USB port, media-card slots (CompactFlash I and II, SmartMedia, all flavors of Memory Stick, Secure Digital, MultiMediaCard, and xD-Picture Card), six individual ink tanks, and an LCD screen for managing your media-card prints. The LCD is only for navigating the menu options and provides no visual preview of the images, so you either have to print out an index sheet of thumbnails (a simple onboard menu option), or remember the order of shots on your media card if you only want to print, say, pictures 18 and 33. For onboard image previews, you can step up to the R300M (\$229), which sports a 2.5-inch color LCD, but we don't recommend doing so. After all, you have a Mac, which is infinitely preferable to a tiny LCD panel for identifying—and prepping—photos.

The R300's print quality was acceptable in all of our tests, although no better than the R200's. Black-and-white prints posed a bit of a problem, with a hint of magenta appearing in subtle gray areas of black-and-white images.

HP Photosmart 7660 (\$129.99) ●●●●●

An awkward middle child in the somewhat dysfunctional Photosmart family, the 7660's media-card slots and secondary USB port accommodate direct printing from most any type of media card (CompactFlash I and II, SmartMedia, all flavors of Memory Stick, Secure Digital, MultiMediaCard, and xD-Picture Card), or from an HP camera such as the Photosmart 735 (\$179.99, www.hp.com). The 7660's two-line monochrome LCD is smaller than the R300's, and is similarly limited to menu-twiddling (no previews). But we're not in this for the gimmickry—we're interested in print quality and maybe a better media tray while we're at it.

The 7660 uses the standard Photosmart media tray, which stacks an output tray above the front-feeding input tray. Rube Goldberg would be proud, but in our testing, this setup ate almost as many sheets of HP's Premium Glossy Photo Paper as it successfully printed. Paper jams (real and phantom), an unintuitive media-tray selector in the driver, and some slightly curled media conspired to make the Photosmart's media tray more trouble than it's worth—we prefer Canon's driver-independent small-media caddy—a turn of the big knob engages it, and it supercedes the regular media input until you disengage it. Ultimately, the 7660's output is on the good side of average, but its media tray is more than we'll put up with for less-than-stunning print quality.

HP Photosmart 7760 (\$179.99) ●●●●●

The Photosmart 7760 suffers from the same media-mangling combination I/O tray that hinders the Photosmart 7660 in this category. We first encountered this tray when we reviewed the Photosmart 7960 (●●●●● *Reviews*, Dec/03, p60). Note to HP: Dump that tray and fire the guy who invented it—and no, we don't care if he's Carly Fiorina's dad.

The 7760 performed similarly to the 7660 in all of our image-quality tests, ranking below average overall, but its black-and-white performance improved noticeably when we installed the optional Gray Photo ink tank. Frillwise, the 7760 offers direct-from-camera printing from compatible HP Photosmart cameras, the full array of media-card support, and a 1.8-inch color LCD screen for limited editing and image selection. Like the Canon i900D's LCD, the latter flips up 90 degrees, which is surprisingly handy if you want to use it while sitting in a chair, adjusting your viewing angle as you shift about. However, we'd cough up another \$60 and get the i900D—or better yet, a less-expensive printer without all this media-card—printing gimcrackery.

Budget Splurge

Stepping up to the \$200 bar gets you a capable printer with a color LCD preview screen to aid in direct printing from cameras and media cards. If you're going for frills, we say get them done right and step up to the relatively pricey \$239.99 Canon i900D, the overall winner in our image-quality testing among all 11 printers.



Canon i900D (\$239.99) ●●●●●

Sporting all the proverbial bells and whistles, Canon's i900D provides CD and DVD printing, a PictBridge USB port, media-card slots supporting all the usual suspects, and an integrated 2-inch color LCD screen for previewing and basic editing such as cropping, resizing, or adjusting the color, brightness, and contrast of prints on inserted media cards and connected cameras. Though we don't care for Mac-less printing, the i900D at least provides useful options for doing so.

The i900D uses six individual-color ink tanks, and the driver is sensible and streamlined enough to make it easy to get

Splurge alert! At the high end of our comparison we have the Canon i900 (top) and Epson R800 (bottom).



that ink onto print media with great-looking results. When you select Photo Paper Pro from the Print dialog's Media Type pull-down menu, for example, the quality settings update to provide only the appropriate options for that media. Other printer drivers provide similar idiot-proof features, but we found Canon's drivers generally produced the

best images with the least amount of futzing. The i900D excelled at all of our default and high-quality tests, and did so faster than any of its competitors in this category. Our only beef with this printer is that it spiced up a few light-gray areas with a hint o' magenta, but the driver makes short work of simple color adjustments.

Epson Stylus Photo R800 (\$399) ●●●●●●●●

What makes the Epson R800 so special that you could buy four Canon i560s for the same amount of cash? Well, for starters, it spits out 1.5-picoliter ink droplets—the smallest we've heard of—which contribute to buttery-smooth, true-color skin tones, plus excellent detail throughout the image. It also packs eight ink tanks under the hood in a unique assortment. You have your standard CMYK inks, Matte Black ink, and three items we've never seen in an inkjet: Red, Blue, and a Gloss Optimizer cartridge—a feature that's new to us. To our jury's eyes, however, all the Optimizer seemed to accomplish (besides adding a minute to a high-quality print's printing time) was a wee bit of extra shine—glare, perhaps?—when we tipped the print toward the light.

Where the R800 stumbles is in user friendliness—its driver is stuck in the dark printing ages of OS 10.1, and cost us too many wasted sheets of photo media when we printed at the wrong settings. How stupid are we that we can't print? Well, the R800's driver adds no fewer than five descriptions of itself to OS X's Print Setup Utility. You end up with separate entries titled Standard, Sheet Feeder—Borderless, Roll Paper—Borderless, Roll Paper—Borderless Banner, Manual Feed, and All, which adds all five descriptions. We picked All to keep our future printing options open and were appalled to see all five printer descriptions appear under the printer list. It's not a deal-killer, but it's enough of a drag to be worth mentioning—other printers consolidate everything under one printer.

Specifying a custom ICC (International Color Consortium) profile is even worse. The list contains Epson's version of all the standards (Adobe RGB 1998, Generic sRGB, and so forth), plus printer-specific profiles for specific combinations of media types and print-quality settings. Problem is, the specific profiles don't play well with the default print settings. When we set the profile to SPR800 PremGlossy BstPhoto.icc and printed on Epson's Premium Glossy Photo Paper at the Best Photo setting, the print looked dark and muddy. This persisted until we changed the Color Management setting from its default Epson Standard to Off. Our results were just as good when using the image's native color space or generic profiles like SPR800 Standard. Diagnosis: The sheer volume of ICC profiles is a pain in the gluteus maximus. ■

Inkjets by the Numbers

Here's a look at the stats for the printers we tested. As you can see, print times, droplet sizes, and additional features vary widely.

Rating	Printer	Price	Ink Tanks	Ink Colors
Bargain Basement				
●●●●●●	Lexmark Z715	\$79.99	2	4 ¹
●●●●●●	HP Photosmart 7260	\$79.99	2	6 ²
The Sweet Spot				
●●●●●●	Canon i560	\$89.99	4 ⁴	4
●●●●●●	Epson Stylus Photo R200	\$99.00	6	6
●●●●●●	Lexmark Z816	\$99.99	2	4 ¹
Midrange				
●●●●●●	Canon i860	\$149.99	5 ⁷	5
●●●●●●	Epson Stylus Photo R300	\$179.00	6	6
●●●●●●	HP Photosmart 7660	\$129.99	2	6 ⁸
●●●●●●	HP Photosmart 7760	\$179.99	2	6 ⁷
Budget Splurge				
●●●●●●	Canon i900D	\$239.99	6	6
●●●●●●	Epson Stylus Photo R800	\$399.00	8 ⁹	7

¹Six-color with optional Photo Color cartridge.

²Faster black-and-white prints with optional Black Print cartridge.

³Supports HP cameras only.

⁴Black tank is pigment-based Photo Black.

⁵Does not support borderless printing.

Cheaper Than Cheap

Can't scrape up a hundred bucks for a good photo printer? You can get a color inkjet for less than half the cost. These low-priced models don't bill themselves as photo printers, but they're perfectly adequate for the occasional image or three.

Printer	Price	Comments
HP Deskjet 3520	\$39.99	HP's least-expensive printer uses a color-ink tank or an optional black-ink tank for higher-quality text printing.
Epson Stylus C44UX	\$49.00	The C44UX boasts quick printing and 2,880 by 7,290 optimized resolution, but doesn't support any of Epson's fade-resistant inks.
Canon i250	\$49.99	Canon's low-cost inkjet can handle envelopes, transparencies, legal-size paper, and even 4-by-6-inch borderless prints.
Canon i350	\$49.99	Nearly identical to the i250, the i350 boasts faster print speeds, borderless 5-by-7-inch prints—and a couple more dBs of noise.
HP Deskjet 3550	\$49.99	The Deskjet 3550 adds high-quality black ink and claims faster print speeds than the 3520: 75 percent faster for black, 25 percent faster for color.
HP Deskjet 3745	\$49.99	Features the same print speeds and 1,200-dpi black printing as the 3550, but boasts twice the color-print resolution: up to 4,800 dpi.
Lexmark Z605	\$51.94	This is Lexmark's lowest-cost 4,800-dpi-capable printer.
Epson Stylus C64	\$59.00	The C64 uses individual-color ink tanks, including tanks of Epson's DuraBrite ink for claimed resistance to light and fading.

Color-Ink Droplet Size	CD and DVD Printing	Media-Card Slots	Camera USB Port	Borderless Print Times (in minutes:seconds)		
				Default Quality, 4 by 6	Default Quality, 8.5 by 11	Top Quality, 8.5 by 11
7 picoliters	no	no	no	1:33	5:52	22:10
5 picoliters	no	yes	yes ³	3:26	2:30	9:10
2 picoliters	no	no	yes	1:19	2:15	6:48
3 picoliters	yes	no	yes	1:57	4:29 ⁵	11:49
10 picoliters ⁶	no	no	no	1:19	5:54 ⁵	9:16
2 picoliters	no	no	yes	1:03	2:14	7:46
3 picoliters	yes	yes	yes	3:10	4:32	11:51
5 picoliters	no	yes	yes ³	2:30	4:05	8:19
5 picoliters	no	yes	yes ³	1:44	4:12	8:17
2 picoliters	no	yes	yes	1:27	3:16	6:35
1.5 picoliters	yes	no	yes	1:37	5:23	8:44

⁶3 picoliters with optional Photo Color cartridge.

⁷Second black tank is pigment-based Photo Black.

⁸Better black-and-white prints with optional Gray Photo cartridge.

⁹Eighth tank is Gloss Optimizer for enhancing prints on glossy paper.



MacAddict Reviews Editor Niko Coucouvanis needs to be physically restrained when he opens a printer box and discovers that—like all the printers in this roundup—it doesn't contain a USB printer cable.

3rd Annual MacAddict

Geek Quiz



The Ultimate Test

Whaddaya, some kind of know-it-all?
We double-dog-dare you to prove it!
You may think you know the Mac, but don't
be so sure until you take our test!



by John Poultney,
Niko Coucouvanis, Kris Fong,
and Rik Myslewski
photography
by Mark Madeo

Some of the material contained
in this quiz comes from *Apple
Confidential 2.0: the Definitive
History of the World's Most
Colorful Company*, courtesy
of former MacAddict editor
Owen W. Linzmayer. For
more information, visit [www
.appleconfidential.com](http://www.appleconfidential.com).



We're all geeks to one degree or another—but to paraphrase that old song, what kind of geek are you? Are you fascinated with all things Mac? Can you keep your friends riveted with tales of symmetric multiprocessing, wait states, and parallel ATA busses? Do you know the Mac's innards and outards, its major milestones, and the names of the people who made it what it is today? The time has come to take a seat, get out a pen or sharpened stick, and discover your inner geek. Using only the simmering cauldron percolating in your skull—no help from the Web, please—relax and take our 3rd Annual Geek Quiz. In addition to learning about Mac history, hardware, and software, you might just discover something about...yourself.

After answering all the questions, compare your answers to the key and then total your score to find out what sort of geek you are. If you don't reach the level to which you aspire, just keep reading *MacAddict* and you'll get there soon enough. Do note, however, that the results of this test will go down on your permanent record.

1 What was Jef Raskin's most significant contribution to Apple?

- Ⓐ He designed the original mouse.
- Ⓑ He directed the 1984 ad.
- Ⓒ He challenged Jean-Louis Gassée to a legendary drag race.
- Ⓓ He wrote the original Finder.
- Ⓔ He was the lead Macintosh designer.

2 RAID stands for:

- Ⓐ Read Array, Identify Drive
- Ⓑ Redundant Array of Inexpensive Disks
- Ⓒ Redundant Array of Independent Disks
- Ⓓ b and c
- Ⓔ Raylene, Am I Dorky?

3 Why does FireWire kick USB's scrawny ass?

- Ⓐ FireWire's peer-to-peer architecture makes for faster communication among devices.
- Ⓑ FireWire uses less power and therefore allows for more device-chaining.
- Ⓒ FireWire cables use thinner and more compact ports.
- Ⓓ FireWire supports many more devices per bus than USB.
- Ⓔ The FireWire logo is much cooler than the USB one.

4 What blocks Bluetooth and AirPort signals?

- Ⓐ Electromagnetic radiation from CRT displays
- Ⓑ Anodized aluminum
- Ⓒ Electric signals from fan bearings
- Ⓓ Voltage surges in powerline networks

- Ⓔ Taser gun usage

5 Why is the Power Mac G5's case perforated?

- Ⓐ To facilitate cheese grating
- Ⓑ So that users can describe their system's configuration to AppleCare reps over

the phone

- Ⓒ To assist in heat dissipation
- Ⓓ To prevent case warping due to thermal variations
- Ⓔ So that technicians can make visual diagnoses before opening the case

6 Which three of the following do you need to fully realize the Power Mac G5's performance?

- Ⓐ Efficient thermal calibration of the hard drive or internal RAID
- Ⓑ Software optimized for the PowerPC 970's architecture
- Ⓒ 64-bit apps and system software
- Ⓓ Improved FireWire implementation
- Ⓔ Third-party, outboard oil coolers

C O C O A P U F F

Awww, you little cutie! Your desk is littered with quick-start guides, unread manuals, and cables that you're going to sort out—just as soon as you get around to it. You're a Cocoa Puff. You might not know the three types of PCI slots, the radius of a Bluetooth PAN, or why you can't plug five printers directly into your USB keyboard, but that's OK. We're here to help you gain that knowledge and a lot more so that you can be the best geek you can be. You'll soon be a Classic User—and from there, who knows?

Score: 0 to 20



7 Interpolation is:

- A Increasing image resolution by adding pixels
- B Reversing the polarity on AC-powered devices to reduce interference
- C Increasing the focal length of a lens for a closer image
- D Interpol's annual conference
- E Estimating the correct colors for a scanned image

8 To which company did Steve Jobs attempt to sell Apple in the mid-1970s?

- A Hewlett-Packard
- B Atari
- C Commodore Business Machines
- D Osborne
- E Piggly Wiggly

9 Which of these companies was not founded by Steve Wozniak?

- A CL9
- B General Magic
- C Wheels of Zeus
- D Cream Soda Computer
- E Unite Us in Song

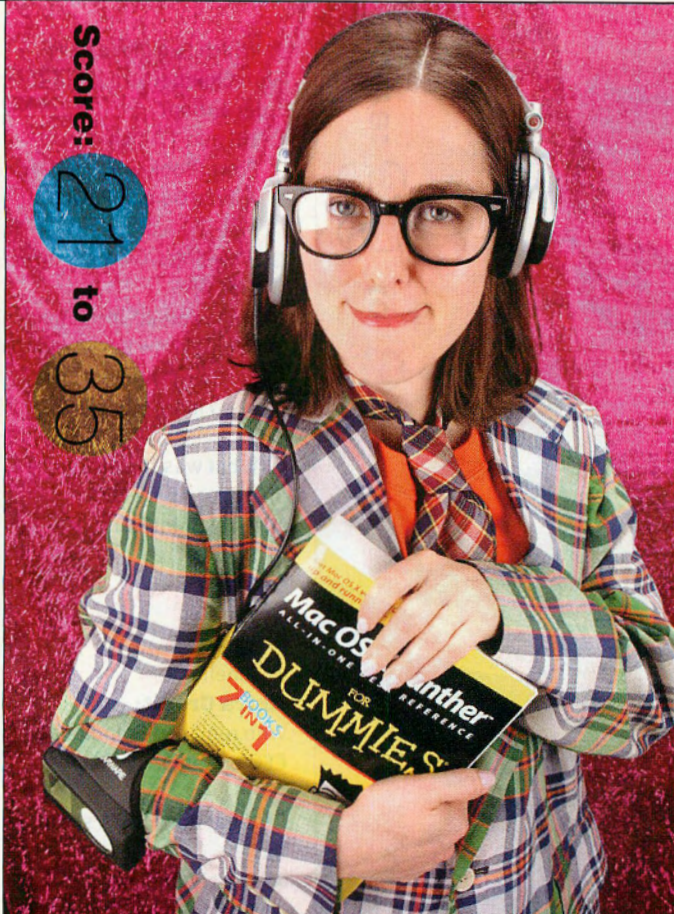
10 What was Apple's code name for the original Power Mac G4?

- A Sawtooth
- B Zounds!
- C Yikes!
- D Criminy!
- E Why, I Oughta...!

11 What did CHRP stand for in the Mac clone era?

- A California Hardware Reseller Plan
- B Cantankerous, Harmful, Rude, and Petulant
- C Clone Hardware Resource Planning
- D Common Hardware Reference Platform
- E Clone Hardware Retailing and Packaging

Score: 21 to 35



CLASSIC USER

You know your PDFs from your P2Ps, and when someone tells you to stuff it, you don't lose your cool. You've been around the Mac for a while now—you're a Classic User. Oh sure, you might not have all the answers, but you're well on your way. Someday soon, someone will come up to you in a crowded bar and say, "What's the deal with desktop printers?" Rather than slink away, you'll sidle up and say, "Jaguar, Panther, or Tiger, my dear?" You're well on your way to geeky greatness. Stick with it.

12 Which company first received a Mac clone license?

- A Motorola
- B Bandai

- C Power Computing
- D UMAX
- E Gateway

Extra Credit:

Which of these companies

produced the Pippin (aka the @World)?

13 Which famous singer did Steve Jobs once date?

- A Joan Jett
- B Joan Baez
- C Rosemary Clooney
- D Debbie Harry
- E Wendy O. Williams

14 To which of these did Steve Jobs try to rename the Mac before it was released?

- A Granny Smith
- B Bicycle
- C Red Delicious
- D Lisa
- E Razor

15 In gaming, a mod is:

- A The opposite of a rocker
- B A code entered to jump levels
- C A fan's alteration of a game
- D An object that can move between levels at will
- E An official who moderates gameplay

16 What was the rumored problem of the PowerBook 5300?

- A It was too heavy.
- B It could spontaneously combust.
- C Its trackball worked erratically in humid climates.
- D It was quickly stolen when left unattended.
- E Its case cracked easily.

17 Which organization named Apple the worst-run company of 1996?

- A Securities and Exchange Commission
- B Standard & Poor's
- C CalPERS (California Public Employees Retirement System)
- D Software and Information Industry Association
- E Pratt and Whitney



Score: 36 to 50

COLONEL PANIC

Huzzah! Your years of sweaty preparation have paid off. You've always known that if you stand and deliver, that if you consistently score above the norm, you will be treated with the respect you deserve. Now, you elicit awestruck stares and envious sighs as you swagger about the break room, casually toss out Unix shell commands, discuss the merits of POP3 and IMAP servers, and expound on Excel macros. Others look up to you, seeing that you've earned a special place among the addicts. You may have a ways to go before becoming a Terminal Geek, but Colonel, we'd take a bullet for you any day.

18 Which two Macs have Fibre Channel as a build-to-order option?

- Ⓐ 15- and 17-inch PowerBook G4s
- Ⓑ Xserve G5 and Power Mac G5
- Ⓒ Power Mac G4 and Power Mac G5
- Ⓓ eMac and 20-inch iMac
- Ⓔ I don't know but would like to—my doctor says I need more Fibre.

19 What was the nickname of former Apple CEO Michael Spindler?

- Ⓐ Doctor
- Ⓑ Snake
- Ⓒ Warbler
- Ⓓ Diesel
- Ⓔ Amelio

Extra Credit:

Who replaced Spindler as CEO of Apple?

20 What does SATA stand for?

- Ⓐ Serial Advanced Technology Attachment
- Ⓑ System Attachment Terminal Apparatus
- Ⓒ Simple Applied Transceiver Architecture
- Ⓓ Sampled Audio Transmission Antialiasing
- Ⓔ Truth and Justice

21 What did Apple declare the year 2003?

- Ⓐ The Year of the G4
- Ⓑ The Year of the Notebook
- Ⓒ The Year of Dual Processing
- Ⓓ The Year of the Frontside Bus
- Ⓔ The Year of the Sheep

22 Branch prediction is:

- Ⓐ Determining which tree branches to step on when climbing
- Ⓑ Determining which path data should take on the system bus

- Ⓒ The CPU clearing unneeded instructions before accepting another
- Ⓓ Anticipating which instruction will be asked for next in a CPU
- Ⓔ CPU cycling to get rid of unneeded instructions

23 The AirPort Express differs from the AirPort Extreme Base Station in what way?

- Ⓐ It has an audio-out port and no modem option.
- Ⓑ It has S/PDIF out.
- Ⓒ A team of Chippendale dancers delivers it to your door.
- Ⓓ It has a modem and an Ethernet port.
- Ⓔ It has a FireWire port.

24 What does AAC stand for?

- Ⓐ Attenuated Audio Circuitry
- Ⓑ Astrological Angioplasty Coefficient
- Ⓒ Apple Advanced Codec
- Ⓓ Advanced Audio Coding
- Ⓔ Advanced Audio Compression

25 What was AppleLink?

- Ⓐ A networking adapter
- Ⓑ An online service
- Ⓒ A document-conversion app
- Ⓓ Apple's wholesale division
- Ⓔ A gourmet sausage

26 What's true of the Power Mac G4 that's not true of the Power Mac G5 (dual-processor models)?

- Ⓐ It has two backside L3 caches.
- Ⓑ Its PCI bus bridge and memory controller are on the same chip.
- Ⓒ It has auto-ranging voltage switching.
- Ⓓ It has two floating-point units per processor.

Ⓔ It's available in a 3.2GHz Pentium 4 configuration.

27 A 1-minute music file would be largest in what format?

- Ⓐ Sung live by a 50-member choir
- Ⓑ AIFF
- Ⓒ AAC
- Ⓓ WAV
- Ⓔ MP3

28 What suffix does GarageBand use to save files?

- Ⓐ .gar
- Ⓑ .band
- Ⓒ .this
- Ⓓ .doc
- Ⓔ .mp3

29 How long did Apple's eWorld last?

- Ⓐ 5 years
- Ⓑ 3 minutes
- Ⓒ 1 year
- Ⓓ 1.5 years
- Ⓔ 2 years

Extra Credit:

With which company did Apple develop eWorld?

- Ⓐ Adelphia
- Ⓑ CompuServe
- Ⓒ Hormel
- Ⓓ AOL
- Ⓔ Pep Boys

30 What was Steve Jobs's 1985 suggestion to name a portable Mac?

- Ⓐ Mac Portable
- Ⓑ BookMac
- Ⓒ PowerBook
- Ⓓ Tote-A-Mac
- Ⓔ The Little Buddy

Extra Credit:

How much did the first battery-powered Mac weigh?

- Ⓐ 15.8 pounds
- Ⓑ 9 pounds
- Ⓒ 0.6 pounds
- Ⓓ 16 pounds
- Ⓔ 16 tons

31 What does BSD stand for?

- Ⓐ Barcalounger Seating Demonstration
- Ⓑ Berkeley Software Distribution
- Ⓒ Battery Series Diagnostic
- Ⓓ Bandwidth Suppression Decoupler
- Ⓔ Bernoulli Storage Device

32 The Newton was most hampered by what?

- Ⓐ A bad LCD display
- Ⓑ Loose chips
- Ⓒ Poor handwriting recognition
- Ⓓ A faulty logic board
- Ⓔ Sharp edges

33 In the Terminal, which of these commands can cause the most trouble?

- Ⓐ grep
- Ⓑ "Go get me a ham sandwich"

- Ⓒ kill
- Ⓓ sudo
- Ⓔ pwd

Extra Credit:

Should you be able to define this term, an extra point is yours.

34 What company did former CEO John Sculley lead before Apple?

- Ⓐ Big John's Hoof-Trimming Service
- Ⓑ Coca-Cola
- Ⓒ IBM
- Ⓓ Pepsi-Cola
- Ⓔ Hewlett-Packard

35 What does TWAIN stand for?

- Ⓐ Trans-Window Acquisition Interface Node
- Ⓑ Technology Without an Interesting Name
- Ⓒ Nothing—it's based on a

poem by Rudyard Kipling

- Ⓓ Test Write and Independent Normalization
- Ⓔ Traditional Wraps And International Noodles (restaurant chain)

Extra Credit:

With what type of hardware is TWAIN most often associated?

- Ⓐ Digital Cameras
- Ⓑ Scanners
- Ⓒ Routers
- Ⓓ Rocks tied on a string at regular intervals
- Ⓔ DVD-R drives

36 PCI is to NuBus as:

- Ⓐ Fructose is to Sucrose
- Ⓑ Ford is to Nixon
- Ⓒ Milk is to Coffee
- Ⓓ PC Card is to PCMCIA
- Ⓔ Gustave Flaubert is to Oscar Wilde

TERMINAL GEEK



You've achieved nerdvana! Things complicated and technically challenging to most of us are to you a lark, a playful pastime. You routinely edit XML tags, build your own DVI connectors, and attempt to improve tunneling encapsulation methods for AppleTalk. You're a clock-chipper from way back, and you regularly hold court in your kitchen about Apple's past mistakes. Whatever you're doing, we love it. You complete us. Come see us sometime, you hunka-hunka burnin' geek.

37 In what version of the Mac OS was the Sherlock find feature introduced?

- A 9.2
- B 10.2.8
- C 8.5
- D 8.6
- E The Hound of the Baskervilles 1.0

38 In Mac OS X, an icon for an alias includes:

- A A curved arrow
- B An italicized title
- C A furry, fast-moving tail that knocks over other icons
- D An outlined shape
- E A drop shadow

39 How do you start up your Mac from a CD?

- A Hold down the C and D keys.
- B Hold down the C key.
- C Push in the CD farther than normal.
- D Press Control-Command-C and hold the CD tray closed.
- E Hold down Command-Option-C.

40 Which of the following can't the 12-inch G4 iBook do?

- A Support mirrored video
- B Accept a FireWire device
- C Fly across the room (if flung)
- D Accept a PC Card
- E Hold more than 256MB of RAM

Extra Credit:

Can the 12-inch iBook directly support a Cinema Display?

41 In Panther, which of the following utilities is not available for installation?

- A Bluetooth Setup Assistant
- B System Profiler
- C X11
- D Speaker Test

E Stuffit Expander

42 Which app most recently went native in Mac OS X?

- A Adobe Photoshop
- B QuarkXPress
- C Adobe Illustrator
- D Adobe InDesign
- E AppleWorks

43 What is the capacity of the iPod mini?

- A 4GB
- B 6GB
- C 8GB
- D 10GB
- E 1.8 liters

44 On what type of computer did Tim Berners-Lee create his first browser app for the Web?

- A Windows
- B Mac
- C NeXT
- D Osborne
- E Timex Sinclair ZX81

45 What does IDE stand for?

- A Integrated Development Environment
- B Integrated Drive Electronics
- C Interactive Digital Electronics
- D Incredibly Dense Earwax
- E a and b

46 How many pins does a Power Mac G5's SDRAM DIMM have?

- A 133
- B 166
- C 184
- D 256
- E It depends on whether or not it's going steady.

47 What's the speed of a Power Mac G5's processor bus?

- A 133MHz
- B 1.5GHz
- C 186,000 miles per second
- D Twice the clock speed of

its CPU

- E Half the clock speed of its CPU

48 What does PCI stand for?

- A Peripheral Component Interface
- B Put Cards In
- C Peripheral Component Interconnect
- D Peripheral Card Interface
- E Passive Connection Implementation

49 What audio plug-in format does GarageBand

support?

- A IBS
- B RTAS
- C AU
- D MAS
- E VST

50 The Dock includes two minimizing effects in Preferences: Genie and Scale. But there's a third, hidden one that you can activate with a little-known Terminal command. What's its name?

- A Float

The Übergeek Effect

If you are above and beyond normal levels of geekdom and feel the need—*nay, the desire*—for further vindication, then indulge your bad self. The following five questions will determine if you're truly über or merely ersatz. We don't expect most people, geeks or no, to offhandedly toss out the answers to these questions, but if you do, please accept our congratulations—and our sympathies.

1 What's the maximum file size in HFS Plus?

- A 2,147,483,648 (2³¹) bytes
- B 4,294,967,296 (2³²) bytes
- C 9,223,372,036,854,775,808 (2⁶³) bytes
- D 18,446,744,073,709,551,616 (2⁶⁴) bytes
- E 32.15089486691835 troy ounces

2 Which is not a flavor of Unix?

- A Linux
- B Mt. Xinu
- C A/UX
- D HP/IX
- E Irix

3 What's prebidding?

- A Mac OS X's way of associating file types

- B A programming technique that improves application launch speeds
- C A prerequisite for the Bettie Page 101 course
- D A preflight step that locks pagination
- E A DVD chapter-marker-encoding standard

4 How many pipeline stages does the PowerPC 970 use to fetch and decode instructions?

- A 3
- B 6
- C 9
- D 12
- E It depends on whether Sonoco or Exxon is filling the pipeline.

- Ⓑ Suck
- Ⓒ Poof
- Ⓓ Slider
- Ⓔ Mini Me

51 What is a B-tree?

- Ⓐ The hierarchy of items within the System folder
- Ⓑ A database that stores sets of preferences for multiple users
- Ⓒ The place where Winnie the Pooh got stuck while attempting to get honey
- Ⓓ The structure of the file catalog in a disk



52 What's a superscalar microprocessor?

- Ⓐ One hard-coded to perform fast-Fourier transforms
- Ⓑ One that can dynamically auto-scale its vector-engine loading
- Ⓒ One that can climb tall buildings faster than Spider-Man
- Ⓓ One that can perform two or more operations at the same time
- Ⓔ One designed specifically for multi-CPU implementations

directory

- Ⓔ Any secondary volume, such as a network server or FireWire hard drive

53 Which of the following musical artists had their songs bundled free with Macs?

- Ⓐ The B-52s
- Ⓑ Foo Fighters
- Ⓒ Train
- Ⓓ Metallica
- Ⓔ both a and c

54 If you want to keep your files intact, what should you never, ever do in the Terminal?

- Ⓐ fsck your hard drive
- Ⓑ rm your root directory
- Ⓒ finger yourself
- Ⓓ kill processor IDs
- Ⓔ run with scissors

55 What can't you do in TextEdit 1.3?

- Ⓐ Check and correct spelling
- Ⓑ Hear text read aloud
- Ⓒ Create hyperlinks
- Ⓓ Play Barry Manilow tunes
- Ⓔ Kern characters

56 How many kilobytes equal one gigabyte?

- Ⓐ 1,048,576
- Ⓑ 1,024,000
- Ⓒ 1,024
- Ⓓ 1,248,374
- Ⓔ 3.14159265

57 Which is not a computer-related acronym?

- Ⓐ UNIX
- Ⓑ FIFO
- Ⓒ FIDO
- Ⓓ POTS
- Ⓔ GIMP

Extra Credit:

What is the derivation of this term?

58 How many devices can you theoretically connect to FireWire, USB, and SCSI

(standard, not wide) buses, respectively?

- Ⓐ 63, 127, 7
- Ⓑ 64, 128, 8
- Ⓒ 128, 64, 7
- Ⓓ 96, 48, 15
- Ⓔ 25 or 6 to 4 (just ask pop sensation Chicago)

Extra Credit:

What does SCSI stand for?

59 How much did the first PowerBook G3 weigh?

- Ⓐ 7.5 pounds
- Ⓑ 5 pounds
- Ⓒ 22 kilograms
- Ⓓ 6 pounds
- Ⓔ 7 pounds

Extra Credit:

What was the size of the original PowerBook G3's hard drive?

60 What is the maximum number of fans you can find inside a Dual 2GHz Power Mac G5?

- Ⓐ Nine—four in the CPU zone, two each in the drive and power supply zones, and one in the PCI zone
- Ⓑ Seven—four in the CPU zone, and one in each of the case's other thermal zones
- Ⓒ Six—one for each of the case's independent thermal zones, plus two in the power supply zone
- Ⓓ Five—one for each CPU, and one in each of the other thermal zones
- Ⓔ Who cares? There are millions and millions of Mac fans around the world.

61 What does your Mac do if you hold down the T key at startup?

- Ⓐ It blows up.
- Ⓑ It starts up as a FireWire disk.
- Ⓒ It goes into debug mode.
- Ⓓ It automatically

partitions the drive into two volumes.

- Ⓔ It starts up from an external DVD drive.

Study Up!

Didn't do as well as you thought you would? Well, it happens to the best of us. What else can you do but study up for next year? Here are a few basics to nibble on—you never know what may appear on the quiz next year.

Math Cheat Sheet

8 bits (b) equal 1 Byte (B), so bits divided by 8 equal Bytes.

Therefore, 54 megabits (Mb) equals 6.75 megabytes (MB).

Hence, 100Base-T Ethernet equals 100 Mbps, or 12.5 MBps.

Acronyms Ahoy!

RAM stands for Random Access Memory

SDRAM stands for

Synchronous Dynamic RAM

DDR RAM stands for Double Data Rate RAM

DIMM stands for Dual Inline Memory Module

SGRAM stands for

Synchronous Graphics RAM

SODIMM stands for Small Outline DIMM

SIMM stands for Single Inline Memory Module

VRAM stands for Video RAM

Startup Tricks

Holding down Command-Option-P-R key at startup resets parameter RAM (hold down through three restarts).

Holding down the mouse button at startup ejects a CD or DVD from the optical drive.

Holding down the Option key at startup lets you pick a different startup disc if one is available.

Answer Key Pencils down! Time to add up your score.

Scoring Info You can earn as many as 70 points from the 60 regular questions and 10 extra-credit questions. Give yourself one point for every answer you get right, and see where you stand. And if you don't make it into the category you want, let there be no tears, no regrets. Just plow onward and upward, head held high. And keep watching the skies.

0 to 20	Cocoa Puff
21 to 35	Classic User
36 to 50	Colonel Panic
51+	Terminal Geek

- 1 Ⓔ He was the lead Macintosh designer.
- 2 Ⓓ b and c (Depending on who you ask, RAID stands for either Redundant Array of *Inexpensive* Disks or Redundant Array of *Independent* Disks. We don't understand how an array can be composed of independent units, but what do we know?)
- 3 Ⓐ FireWire's peer-to-peer architecture makes for faster communication among devices.
- 4 Ⓑ Anodized aluminum
- 5 Ⓒ To assist in heat dissipation
- 6 Ⓑ, Ⓒ, and Ⓓ Software optimized for the PowerPC 970's architecture, 64-bit apps and system software, and improved FireWire implementation
- 7 Ⓐ Increasing image resolution by adding pixels
- 8 Ⓒ Commodore Business Machines
- 9 Ⓑ General Magic
- 10 Ⓒ Yikes!
- 11 Ⓓ Common Hardware Reference Platform
- 12 Ⓒ Power Computing
Extra Credit: Bandai
- 13 Ⓑ Joan Baez (We're glad it wasn't e, or Macs might have been held together with electrical tape.)
- 14 Ⓑ Bicycle
- 15 Ⓒ An fan's alteration of a game
- 16 Ⓑ It could spontaneously

- combust.
- 17 Ⓒ CalPERS (California Public Employees Retirement System)
 - 18 Ⓑ Xserve G5 and Power Mac G5
 - 19 Ⓓ Diesel
Extra Credit: Gil Amelio
 - 20 Ⓐ Serial Advanced Technology Attachment
 - 21 Ⓑ The Year of the Notebook
 - 22 Ⓓ Anticipating which instruction will be asked for next in a CPU
 - 23 Ⓐ It has an audio-out port and no modem option.
 - 24 Ⓓ Advanced Audio Coding
 - 25 Ⓑ An online service
 - 26 Ⓐ It has two backside L3 caches.
 - 27 Ⓑ AIFF
 - 28 Ⓑ .band
 - 29 Ⓓ 1.5 years
Extra Credit: Ⓓ AOL
 - 30 Ⓑ BookMac
Extra Credit: Ⓐ 15.8 pounds
 - 31 Ⓑ Berkeley Software Distribution
 - 32 Ⓒ Poor handwriting recognition (One might argue that the LCD quality was also bad, but the handwriting issue was the early Newton's most serious failing.)
 - 33 Ⓒ sudo (The kill command also has big-trouble potential but not as much as sudo.)
Extra Credit: Either *superuser* do or *substitute user* do
 - 34 Ⓓ Pepsi-Cola

- 35 Ⓒ Nothing—it's based on a poem by Rudyard Kipling (This term was based on the difficulty of hooking up scanners in the early days, in reference to Kipling's line "And never the twain shall meet"—but give yourself half a point if you answered b, which is the most accepted urban myth.)
Extra credit: Ⓑ Scanners
- 36 Ⓑ Ford is to Nixon (Gerald Ford followed Richard Nixon—and was less troublesome.)
- 37 Ⓒ 8.5
- 38 Ⓐ A curved arrow
- 39 Ⓑ Hold down the C key
- 40 Ⓓ Accept a PC Card
Extra Credit: No
- 41 Ⓓ Speaker Test
- 42 Ⓑ QuarkXPress
- 43 Ⓐ 4GB
- 44 Ⓒ NeXT
- 45 Ⓑ a and b
- 46 Ⓒ 184
- 47 Ⓑ Half the clock speed of its CPU
- 48 Ⓒ Peripheral Component Interconnect

- 49 Ⓒ AU
- 50 Ⓑ Suck (In the Terminal, type `defaults write (space) com.apple.Dock (space) mineffect suck`, and then log out.)
- 51 Ⓓ The structure of the file catalog in a disk directory
- 52 Ⓐ The B-52s
- 53 Ⓑ rm your root directory
- 54 Ⓒ Create hyperlinks
- 55 Ⓐ 1,048,576
- 56 Ⓐ UNIX
Extra Credit: It's derived from Multics (Multiplexed Information and Computing Service), an early mainframe OS. Unix isn't multiplexed, it's "uniplexed."
- 57 Ⓐ 63, 127, 7
Extra Credit: Small Computer Systems Interface
- 58 Ⓐ 7.5 pounds
Extra Credit: 5GB
- 59 Ⓐ Nine—four in the CPU zone, two each in the drive and power supply zones, and one in the PCI zone
- 60 Ⓑ It starts up as a FireWire disk.

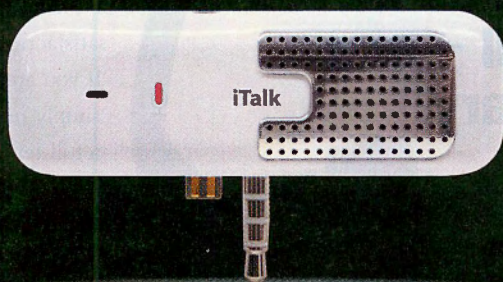
Übergeek Answer Key

- 1 Ⓒ 9,223,372,036,854,775, 808 (2⁶³) bytes
- 2 Ⓑ HP/IX (Hewlett-Packard's Unix variant is HP/UX)
- 3 Ⓑ A programming technique that improves application launch speeds
- 4 Ⓒ 9
- 5 Ⓑ One that can perform two or more operations at the same time

You listen to your iPod every day, Now your iPod can listen to you.

The creators of iTrip now introduce the **Griffin iTalk** iPod Voice Recorder. Plug iTalk into your iPod and record thoughts, ideas or meetings with its high quality built-in microphone.

Play back your voice memos or music through iTalk's built-in speaker. You can even connect a separate mic or your headphones into iTalk. So talk all you want, iPod will listen.



iTalk

\$39⁹⁹

Voice Recorder for iPod

- Turns iPod into a full function voice recorder
- Internal microphone and laptop quality speaker
- Connect external microphone or headphones
- Automatic Level Control for perfect recordings



iTrip

\$35

FM Transmitter for iPod

- Play your iPod's music wirelessly in your car or through your stereo at home
- Uses any empty FM station from 87.7 to 107.9 - switchable from the iPod itself
- iPod powered & earth friendly - no batteries needed or wasted ever
- Fits beautifully to top of iPod - no messy cables to get in the way

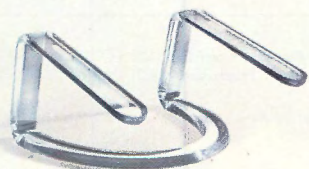


iMic

\$39⁹⁹

USB External Sound Card

- Adds superior quality audio recording & playback to any Mac via USB
- Includes everything needed to record albums and tapes to make MP3s & CDs
- Works great with GarageBand & iMovie



iCurve

\$39⁹⁹

PowerBook & iBook Stand

- Raises notebook screen to eye level - no more sore neck from looking down
- Creates room on the desktop for your favorite USB keyboard and mouse - wireless versions work great
- Keeps your notebook running cool (and loud fans off) with 360° airflow

Another great idea from **Griffin**
learn more at www.griffintechnology.com

Think of them as a Mute button for the world around you.

Whether it's the engine roar on airplanes, noise of the city, bustle in the office or the blare of neighborhood yard work, these headphones let you hush them all. And they do it with the flick of a switch. You savor delicate musical nuances in places where you couldn't before. And when you're not listening to music, you can use them to quietly enjoy a little peace. Clearly, Bose QuietComfort® 2 headphones are no ordinary headphones. It's no exaggeration to say they're one of those things you have to experience to believe.

Reduce noise with Bose

technology. David Carnoy reports on CNET that our original noise-reducing headphones "set the gold standard." And according to respected columnist Rich Warren, our newest headphones "improve on perfection." They electronically identify and reduce noise while faithfully preserving the music, movie dialogue or tranquility that you desire. As Jonathan Takiff reports in the *Philadelphia Daily News*, "Even in the noisiest environment, wearing these phones creates a calming, quiet zone for easy listening or just snoozing."

Enjoy your music with our best headphone sound quality ever.

After trying QuietComfort® 2 headphones, audio critic Wayne Thompson reports that "Bose engineers have made major improvements." The sound is so clear, you may find yourself discovering new subtleties in your music. CNET says "All sorts of music – classical, rock, and jazz – sounded refined and natural."



"The QuietComfort 2 lives up to its name, enveloping you in blissful sound in the utmost comfort. It's easy to forget they're on your head." That's what columnist Rich Warren says. And as Ivan Berger reports in *The New York Times*, the "QuietComfort 2

offers more conveniences than the original model." You can wear them without the audio cord to reduce noise. Or, attach the cord and connect them to a portable CD/DVD/MP3 player, home stereo, computer or in-flight entertainment system. When you're done, their convenient fold-flat design allows for easy storage in the slim carrying case.



Try the QuietComfort® 2 headphones for yourself risk free.

We don't expect you to take our word for how dramatically these headphones reduce noise, how great they sound and how comfortable they feel. You really must experience them to believe it. Call toll free to try them for 30 days in your home, at the office or on your next trip – satisfaction guaranteed. If you aren't delighted, simply return them for a full refund.

Use them as a
concert hall – or a
sanctuary.

Presenting
The Bose®
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Acoustic
Noise
Cancelling®
Headphones.

Call 1-800-407-2673, ext. Q3013 today. These headphones are available direct from Bose – the most respected name in sound. When you call, be sure to ask about our financing options. And discover a very different kind of head-

phone – Bose QuietComfort® 2 Acoustic Noise Cancelling headphones.

**FREE
shipping
with your
order.**

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The Mountain, Framingham, MA 01701-9168

BOSE®
Better sound through research®

MacAddict RATED
 ●●●●●
AWESOME
 You'll be blown away.

MacAddict RATED
 ●●●●○
GREAT
 You'll be impressed.

MacAddict RATED
 ●●●○○
SOLID
 You'll be satisfied.

MacAddict RATED
 ●●○○○
SO-SO
 You'll be disappointed.

MacAddict RATED
 ●○○○○
LOUSY
 You'll be pissed off.

better living through smarter shopping

The video card you see here—ATI's Radeon 9800 Pro Mac Special Edition—is the current king of Mac-friendly video cards. However, by the time you read this, nVidia's GeForce 6800 Ultra DDL card should be available and capable of driving Apple's new 30-inch Cinema Displays (see "Bright Lights, Big Displays," p14)—a claim no other card can make. Other best-of-breed products this month include Apple's DVD Studio Pro 3, the awesome WWII shooter Call of Duty, and Keyspan's USB Server—which didn't thrill us but is the only device of its kind and thus best by default. In the near future, we'll rock AirPort Express and iTunes, as well as the first drive we've seen capable of burning dual-layer DVDs.

X Compatible with Mac OS X or later.

9 Compatible with Mac OS 9 or earlier.



We'd spend our own hard-earned money on this product.

- 53 *ist-D 6.1-megapixel SLR camera
- 46 After Effects 6.5 video compositor
- 52 Call of Duty shooter game
- 60 Change My image hairstyle simulator
- 47 Combustion 3 video compositor
- 48 DVD Studio Pro 3 DVD-authoring software
- 60 GS-10 Guitar Effects System USB and MIDI interface
- 56 HFI-15G headphones
- 50 InEffects 1.0 InDesign plug-in
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- 56 Noise Canceling Headphones headphones
- 55 Notebook ScreensavRz notebook screen protector
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- 51 Radeon 9800 Pro Mac Special Edition video card
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- 57 SightLight iSight light
- 50 Smart Styles InDesign plug-in
- 59 Space Color
- 58 Unity Synth audio synthesizer
- 57 USB Server USB-sharing device

PLUS: TheHotList

63 The best of the best from recent reviews.



After Effects 6.5

VIDEO COMPOSITOR FOR THE PROSUMER MASSES

Less than nine months after releasing After Effects 6.0 (Reviews, Dec/03, p62)—which was a *major* update—Adobe follows up with this chock-full upgrade that goes way beyond bug fixes and tweaks. In fact, there's so much new stuff here that it feels like After Effects 7 even in the lower-end Standard edition—which we'll cover first before getting into the Pro version's perks.

Our favorite new feature is Animation Presets, which let you save anything you can keyframe—not just effects, but animation attributes such as scale and position as well as masks and expressions—into the equivalent of a Favorite. To get you started, Adobe includes almost 300 editable presets for text-animation effects—the kind of cool stuff that looks good in movie trailers and TV commercials—which require little or no tweaking.

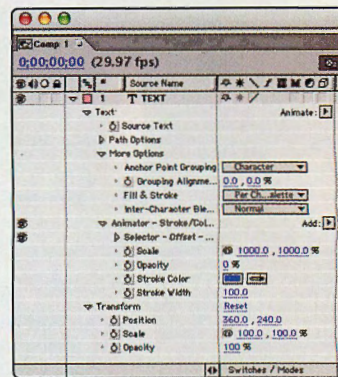
Compositing tools get small but appreciated boosts too. The Clone tool is easier to use, thanks to a new

nudge paint strokes, and you can also erase just your last stroke instead of its whole layer. As for After Effects' motion tracker, it gains the ability to track to an element's scale for objects that are moving closer or further away (without making you set multiple tracking points), and you can limit its tracking to just the horizontal or vertical direction.

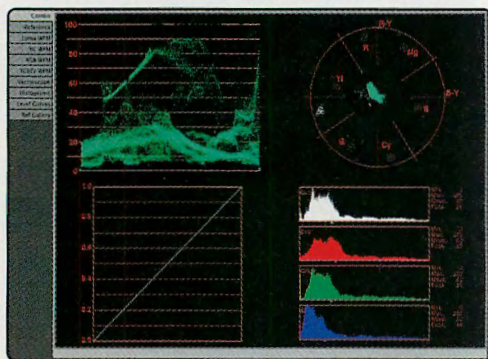
Both versions include tons of bonus effects plug-ins, many of which are also commercially available for hundreds of dollars but come free as part of this upgrade. For starters, you get improved versions of the 60 filters that made up the much-loved Final Effects Complete package—a word of warning, though: They're not backward-compatible with the old Final Effects filters. The Standard version includes over 150 plug-ins, and the Pro version adds 30 more, including Grain Surgery, a set of 3 plug-ins that are quite good at matching film grain between shots or removing excessive grain and video noise without seriously affecting your image quality.

In both versions, After Effects' color-correction tools also take a big step forward with Color Finesse 1.5. This plug-in works in a 32-bit floating-point color space, and offers a built-in waveform monitor and vector scope plus lots of fine-tuning controls. The Pro version can even import and export 16-bit color images in industry-standard formats, including Avid's native OMF (open media framework).

Performancewise, many of the plug-ins and processor-intensive tools (such as Vector Paint) seemed peppier on our



Applying Animation Presets is as easy as dragging the preset's icon (left) into a layer on the Timeline (right)—and yes, you can tweak any of the preset settings.



This is what advanced color correction looks like, courtesy of After Effects' new plug-in, Color Finesse.

semitransparent overlay that lets you see the original uncloned image onscreen as you go, and helps keep your cloning work aligned with important elements in a shot. Adobe has also improved the vector paint tools—you now have the ability to



COMPANY: Adobe
CONTACT: 800-833-6687, www.adobe.com
PRICE: \$699 (Standard), \$999 (Pro), \$99 to \$199 (upgrades)

REQUIREMENTS: G3 or faster (Dual G5 recommended), Mac OS 10.3.2 or later, 128MB RAM (256MB recommended), 150MB disk space

GOOD NEWS: Customizable animation presets. Tons of new effects filters. Speed boosts.
BAD NEWS: Complicated interface. No Adobe pro-video companion apps to use with it.

MacAddict RATED
AWESOME

Combustion 3

PROFESSIONAL VIDEO COMPOSITOR

Once considered the demipro motion-graphics app, Combustion sits somewhere between After Effects Pro (p46) and pro video tools with five-figure price tags. Last year Discreet dropped Combustion's price from \$4,999 to \$995, giving lower-budgeted prosumers a chance to play with the Real Deal. Already an awesome product (Reviews, Jun/02, p46), Combustion 3 brings new features, including the Edit Operator, Expressions, customizable paintbrushes, and built-in warping and morphing via the venerable RE:Flex operator.

Combustion normally works with layers of images, as opposed to video editors such as Final Cut Pro, which are mainly used to assemble footage in sequence. With Combustion's new Edit Operator, a compositing artist can do both within Combustion. However, while you can import and sequence footage, and employ common

is extremely convenient.

Expressions let you use math rather than manual keyframes to control variables. For example, to make a video's brightness oscillate between dark and light, you'd normally add a Brightness/Contrast Operator to your footage and, on the timeline, draw a sine wave in the Brightness/Contrast region. Using an Expression, you can describe that shape using math and JavaScript—handy for the code nerds. For the rest of us, there's the Expression Browser, which includes a precoded sine, as well as other waves. You can even select an Expression on the timeline and edit its underlying code. Web geeks: There may be a place for you in Hollywood.

The powerful Paint Operator specializes in vector-based objects and text, which makes Combustion a good companion to Macromedia's Flash—and the relationship goes beyond simply exporting SWF files (Flash movies). When you turn on the new Flash Mode option in the Paint Toolbar, Combustion turns off any non-SWF tools, so you won't accidentally use tools that Flash doesn't support. Combustion also has a Flash View mode that displays your animations in a

Combustion Viewport. The best thing about the Paint Operator is that it lets you create custom paintbrushes based on existing Paint Objects, imported footage, and even a frame from the Particle Emitter (an Operator that generates physics-based effects such



Combustion 3 adds handy new tricks like basic video editing, right in the Combustion Workspace.

transitions (cuts, cross-fades, and wipes) as with Final Cut Pro, that's about it. The editing tools are limited, but assembling and incorporating footage into your composites without prerendering



Combustion's custom brushes let you get creative—or in this case, downright disturbing.

as smoke, water, and fireworks).

RE:Flex, a warping-morphing product from RE:Vision FX, is now built into Combustion. You've seen these effects before—warping was a big part of Soundgarden's "Black Hole Sun" video, for example, where people's faces contorted in physically impossible ways. When you see one actor's face transform into another's—such as in the TV series *The X-Files*—that's morphing. While it's great to have this \$595 plug-in free with Combustion, its practicality is limited. Also, figuring out how to use it was downright frustrating for us.

Now that Combustion is the same price as After Effects, how do the two compare? What really sets them apart is their interfaces. After Effects uses multiple floating windows and palettes, while Combustion has a single, context-sensitive window. This may be purely a matter of preference—but the more we use Combustion, the more sense its interface makes. Combustion also uses a node-based paradigm, whereby Operators (such as footage, paint, and effects) are represented onscreen by objects that you manipulate and interconnect to your taste. Big-time apps like Alias Maya and Apple Shake use nodes that make visualizing your projects and editing them much faster. After Effects has always had the best plug-ins, though, so we can't easily shelve such a ubiquitous tool. If you're serious about compositing, you'll want both.—Andrew Tokuda



COMPANY: Discreet
CONTACT: 800-869-3504,
www.discreet.com
PRICE: \$995

REQUIREMENTS: 800MHz G4 or
faster (Dual 2GHz recommended),
Mac OS 10.2 or later, 512MB RAM,
32MB VRAM

GOOD NEWS: Same awesome Combustion at one-fifth the price.
Customizable paint brushes. Onboard editing.
BAD NEWS: Documentation could be better.

MacAddict RATED
AWESOME



DVD Studio Pro 3

DVD-AUTHORING SOFTWARE OF THE GODS

If you want to build pro-level DVDs, you've got plenty of options: There's DVD Studio Pro, then there's DVD Studio Pro, and finally, there's DVD Studio Pro. But that's fine with us, because this app is such a standout tool, letting you author DVDs with a simple drag-and-drop interface while mixing in plenty of high-end goodies such as subtitles, multiple video and audio tracks, sophisticated scripts, and more. And although Studio Pro's third rendition doesn't take the huge leap that version 2 did, it still packs in plenty of useful, workhorse enhancements—with just one exception.

Studio Pro's biggest improvement is its new transitions, which may not sound too sexy but actually represent a quiet revolution in how you go about adding pizzazz to even the most bare-bones projects. Basically, Studio Pro can automatically create a new video clip, which smoothly transitions from one still menu or track to another, instead of making new menus and tracks abruptly pop up onscreen. For example, you can make Menu A fade to black before starting your feature presentation, or smoothly cross-fade into another menu.

At \$499, you can't beat it.

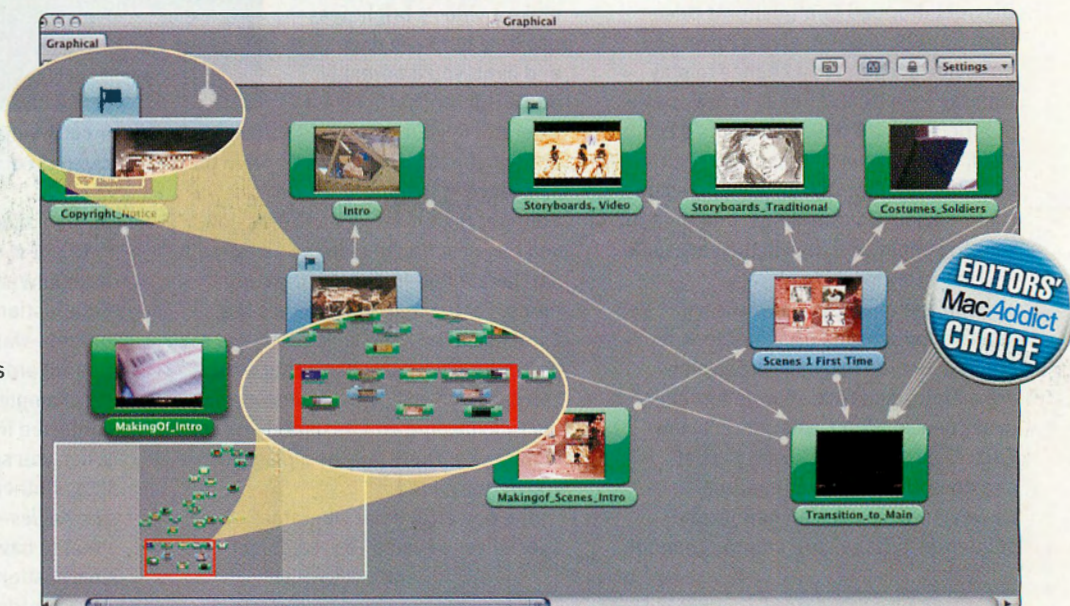
Of course, DVD players don't generate these transitions in real time; instead, transitions are actually pre-encoded video clips that play from the DVD like any other content. And Studio Pro saves you from having to create these transition videos manually in a separate program such as Final Cut Pro or After Effects; instead, you simply pick a transition to apply to a menu or track, and Studio Pro creates the transitional video for you—a huge convenience.

You can tweak your transitions' duration, direction, and other settings,

and you have 30 prefab transitions to choose from: wipes, fades, blurs, and so on. Plus, Studio Pro supports Alpha transitions, which means you can

quick reference.

Studio Pro also adds a bunch of smaller tweaks you'll appreciate. For example, it now works with audio in the DTS



DVD Studio Pro 3's new Graphical view shows tracks as green tiles and menus as blue ones. Arrows indicate where all your menus and tracks lead. You can flag tiles in progress (upper left) and birds-eye the project in macro view (lower left).

create an animation in After Effects or Apple's upcoming Motion, save it with an alpha channel, and use it as a custom transition: a ring of fire that wipes across the screen, Godzilla's foot moving through the frame, a logo flying into position—you name it.

The other big addition to Studio Pro is the return of version 1.5's Graphical view (AWOL in version 2), which shows you a bird's-eye view of your DVD's contents, with each menu and track represented by a tile (a thumbnail graphic), and with lines and arrows connecting related menus and tracks. Graphical view is the best way to see how your DVD's content flows, and Apple has improved the feature with a bunch of thoughtful touches: For starters, you can author in this view by dragging new content to any tile. You can also visually flag any menus and tracks that still need work, scale your view to fit even huge projects on a single screen (no scrolling), and print the view to show a client or post on a wall for

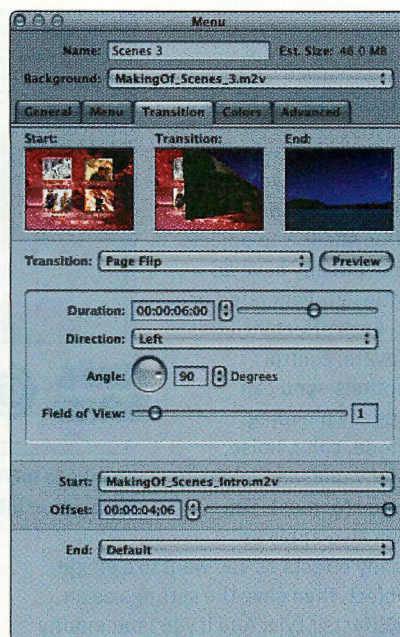
format (an alternative to Dolby Digital that some customers might prefer), has better Photoshop integration (edit an existing menu in Photoshop, and Studio Pro reflects your changes), and supports DVD+R/W disks—though there's no support yet for the fancy dual-layer recorders just hitting the market. Plus you can now create a custom jacket picture for your DVD—that is, a still image that shows up whenever someone stops playback, so viewers don't have to stare at a blank TV screen.

Finally, while Studio Pro 2 had some problems setting a proper dual-layer break point for DVD-9 disks (which have to be replicated en masse, not burned in your SuperDrive), Apple says it has fixed these hiccups since version 2.05, carrying forward to version 3. We couldn't verify that for ourselves, but we recommend you visit some online discussion forums to see what "the street" has to say.

Given all this, what's not to like? Very

little—except Compressor, the sidekick app that encodes your video into the MPEG-2 format DVDs require. At first, we were quite smitten with Compressor's ability to generate high-quality video without making us tweak the app's endless settings (or even understand them). But the honeymoon is over, and Compressor's idiosyncrasies are now getting on our nerves. Its interface is just a bit klunky, making some things harder than they should be—such as setting up large batches of encodes, giving files precisely the names you want, and quickly experimenting with different settings (plus some odd bugs that occasionally prevent exporting directly from Final Cut

You can set transitions—like our Page Flip right here—by way of the Transition tab in the Inspector palette.



Pro). In the end, you can always do what you want with Compressor—but it often takes a few extra steps.

Our biggest beef with Studio Pro is how it compresses audio files into the space-efficient Dolby AC3 format. Most professional projects require AC3, but Studio Pro encodes audio using the stand-alone Apack application, which is unintuitive, sets up batch encodes awkwardly, and adds an unnecessary step to your workflow. Ideally, we'd love to see an improved Compressor take over Apack's encoding duties.

Still, we have to put these gripes in a larger context. Even though Studio Pro 3's encoding tools could be sharper, there's no denying it makes the rest of the authoring experience a pure joy. It's intuitive, fast, and offers tons of professional options. At \$499, you can't beat it.—*Helmut Kobler*



COMPANY: Apple Computer
CONTACT: 800-795-1000 or
408-996-1010, www.apple.com
PRICE: \$499, \$199 (upgrade)

REQUIREMENTS: 733MHz G4, Mac
OS 10.3.2 or later, 256MB RAM (512MB
recommended) AGP graphics card with
8MB VRAM (32MB recommended)

GOOD NEWS: Transitions give even bare-bones projects flash with little effort. Graphical view makes organizing large DVDs much easier. Better Photoshop integration.

BAD NEWS: Tools for encoding video and audio feel rough.

MacAddict RATED
●●●●●
GREAT

Your Mac Media Center - All in one!

"Unique in offering both analog-to-DV conversion and TV viewing." Macworld

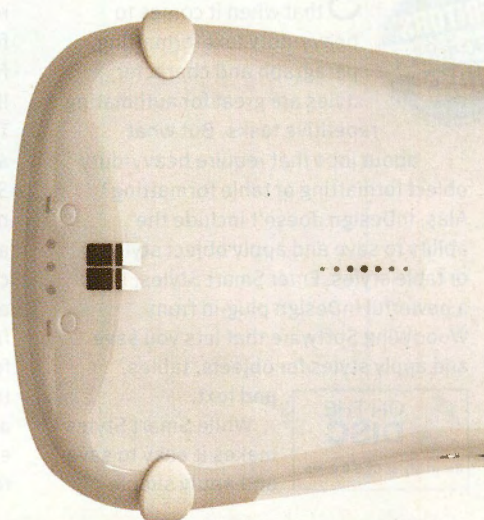
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All in one - turn your Mac into a TV, VCR and analog-to-digital video/audio converter. All videos are captured real-time in high quality DV. Recordings are therefore instantly accessible for frame-accurate editing, making the Studio TVR the ideal choice for creative professionals. The built-in TV tuner and our TVR software turn your Mac into a high-quality digital media center:

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- Convert your files to MPEG2 for DVD burning.
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InEffects 1.0

INDESIGN TRANSPARENCY-EFFECTS PLUG-IN

If you think InDesign's transparency effects are just about the coolest features in the history of page-layout software, you'll love InEffects. This plug-in from ALAP adds a handful of powerful Photoshop effects to the program's built-in transparency features.

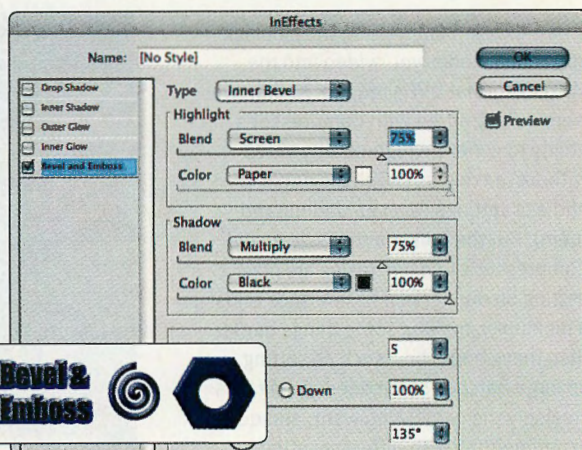
The effects are hardly revolutionary. InEffects brings familiar Photoshop tools—Standard Drop Shadow, Inner Shadow, Outer Glow, Inner Glow, and Bevel And Emboss—right into InDesign, which saves you from bouncing back and forth when you need to tweak transparency effects in Photoshop to fit a page layout in InDesign. Of the effects, Drop Shadow is redundant

to InDesign's stock toolkit, but InEffects' Drop Shadow provides tighter

controls for intensity and noise—plus, you can use InEffects to add a second drop shadow to objects that already have an InDesign-generated one.

Each effect includes several control options—you can specify blending mode, color, noise, blur value, and intensity value for most. You can also apply as many effects as you want to a single object, then save the settings as an InEffects Style. And if you later modify an InEffects Style, all objects to which you've already applied it automatically update to match.

Though InEffects is definitely a



Thanks to InEffects, you can now bevel and emboss graphics from within InDesign.

must-have add-on for serious graphic designers, it's not exactly loaded with features for the price. However, if you currently use Photoshop to create lots of effects that you could otherwise create with InEffects, it will pay you back in time saved.—John Cruise



COMPANY: ALAP
CONTACT: 760-438-5790,
www.alap.com
PRICE: \$99.99

REQUIREMENTS: Power PC,
Mac OS 9.1 to Mac OS 10.2 or later,
InDesign 2.x or InDesign CS.

GOOD NEWS: Nifty Bevel And Emboss tool.
Can save you time.
BAD NEWS: Not many features for the price.
Drop Shadow is already available in InDesign.

MacAddict RATED
GREAT

Smart Styles CS

INDESIGN CS STYLE PLUG-IN



Savvy designers know that when it comes to heavy-duty text formatting, paragraph and character styles are great for automating repetitive tasks. But what about jobs that require heavy-duty object formatting or table formatting? Alas, InDesign doesn't include the ability to save and apply object styles or table styles. Enter Smart Styles, a powerful InDesign plug-in from WoodWing Software that lets you save and apply styles for objects, tables,

and text. While Smart Styles makes it easy to save and apply simple

object styles, its real power lies in formatting text frames and tables. If you drag a Smart Text Style icon onto a text frame, the Smart Style applies frame attributes to that frame and applies text-formatting attributes (including paragraph and character styles) to the text within. For example, if you create a Smart Style from a table, the style retains both the formatting attributes of the table, and the paragraph and character formats applied to the text within each cell. It even retains headers and footers, which reduces the task of formatting complex

item	image	price	description
Golf Shoes		\$75.00	Stylish yet comfortable, these shoes are guaranteed to trim several strokes off your handicap — and you can use screws the spikes to create comfortable slippers.
Football Helmet		\$125.00	Instead of padding, this helmet includes a stereo sound system — perfect for punters, placekickers and other on-contact positions.
Catcher's Mask		\$99.00	Not only will the catcher in your life appreciate this fine mask, it's also the ideal gift for umpires, martial artists, and anybody else who regularly takes shots to the head.
Catcher's Mitt		\$79.00	This rugged catcher's mitt is the perfect complement to our catcher's mask. Made from fine Corinthian leather. Can be used as a seat cushion/flotation device.

item	image	price	description
Golf Shoes		\$75.00	Stylish yet comfortable, these shoes are guaranteed to trim several strokes off your handicap — and you can use screws the spikes to create comfortable slippers.
Football Helmet		\$125.00	Instead of padding, this helmet includes a stereo sound system — perfect for punters, placekickers and other on-contact positions.
Catcher's Mask		\$99.00	Not only will the catcher in your life appreciate this fine mask, it's also the ideal gift for umpires, martial artists, and anybody else who regularly takes shots to the head.
Catcher's Mitt		\$79.00	This rugged catcher's mitt is the perfect complement to our catcher's mask. Made from fine Corinthian leather. Can be used as a seat cushion/flotation device.

Smart Styles helped us beautify a plain-old table (left) into a fully formatted tabular masterpiece (right)—in one click.

multicolumn and multipage tables to a single step. If you work with lots of tables, this feature alone is worth the price of Smart Styles CS.

Smart Styles has a lot going for it: It's easy to use, versatile, and saves time. If you work on highly formatted publications, such as newsletters, magazines, and newspapers, make Smart Styles your new assistant.

—John Cruise



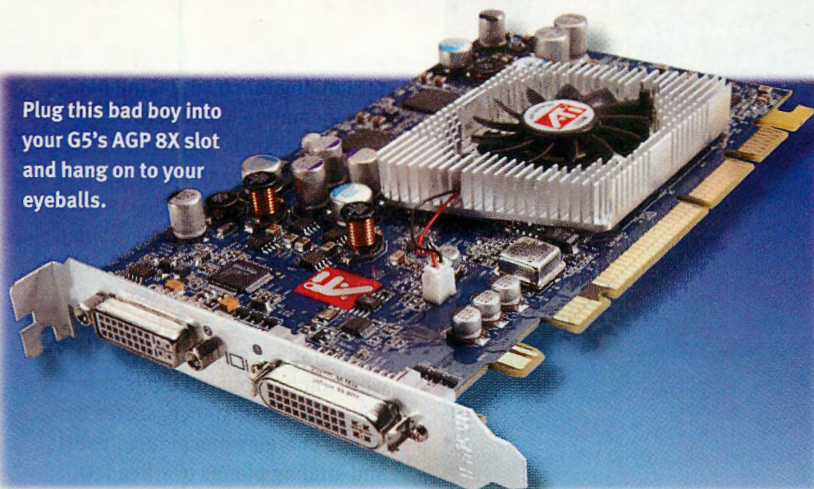
COMPANY: WoodWing Software
CONTACT: 313-884-5581,
www.woodwing.com
PRICE: \$149

REQUIREMENTS: G3, Mac OS X,
InDesign CS

GOOD NEWS: Huge productivity boon.
Killer table styles.
BAD NEWS: Redefining a Smart Style is a little cumbersome.

MacAddict RATED
AWESOME

Plug this bad boy into your G5's AGP 8X slot and hang on to your eyeballs.



Radeon 9800 Pro Mac Special Edition

FAT MAC VIDEO CARD

If you're looking to eke the best possible graphics performance out of your G5—the fastest, smoothest antialiasing; the most realistic, cinematic 3D effects; and game framerates fast enough to impress your peecce pals—you just found it in the Radeon 9800 Pro Mac Special Edition. Well, except for the high-framerates bit, but—like movies—games play silky smooth at 30 frames per second, so anything much beyond that is wasted on the human eye.

This card supports the latest graphics technologies: SmartShader 2.1 for vertex and pixel shading; SmoothVision 2.1 for up to 6X antialiasing and trilinear filtering; HyperZ III+, a hierarchical, lossless Z buffer for optimizing real-time shadow rendering; and VersaVision, which rotates the action for those times when you want to get cockeyed and flip your Cinema Display sideways into portrait view—or 180 degrees until it's upside-down (articulating monitor arm not included; see the PixArm review, right). Speaking of Apple displays, the Special Edition's dual-monitor support provides one ADC connector

and a standard DVI-I connector, each supporting the 23-inch Apple Cinema Display's 1,920-by-1,200-pixel resolution.

Sounds pretty cutting edge, no? The little secret is that all this graphical goodness is unchanged from the 128MB Radeon 9800 Pro, the former king of Mac graphics cards. The Special Edition version doubles the RAM, thus enabling more of the visual effects, but doesn't speed up the underlying architecture. Our game framerates didn't change a bit when we upgraded from the 9800 Pro to the Special Edition. But the games *look* better at the same graphics settings.

Installation was plug-and-play, with two potential gotchas: The manual insists that you have to plug the 9800 Pro into the Mac's power supply—this card doesn't have (or need) a power connector; we also had to download a newer driver (free, www.ati.com).

This is the card to get if you want the most out of your DVI display, or 17-inch, or 23-inch Cinema Display, but it's not compatible with Apple's forthcoming 30-incher.—Niko Coucouvanis

PixArm

SLICK ARTICULATING-ARM DISPLAY MOUNT

We love the iMac's infinitely adjustable display neck, but we wouldn't trade our Power Mac G5 for that feature—and now we don't have to. The double-jointed PixArm makes your flat-panel LCD more mobile than an iMac's, providing a vertical range of 15.2 inches, horizontal extension just over 2 feet, more than 90 degrees of vertical screen tilt, and full rotation for portrait view and beyond.

Setting up the arm is a snap using the included sturdy hardware for bolting the base to a desktop or wall, or clamping it to a tabletop, and an Allen wrench for adjusting the spring tension to suit your display's weight. Apple's older displays require an additional adapter, included in the PixArm kit we reviewed. On the other hand, VESA-standard displays—such as Apple's latest (with Apple's VESA Mount Adapter Kit, \$29; see "Bright Lights, Big Displays," p14)—bolt right onto the arm, shaving a hundred bucks off the price.

No matter which display you bolt to it, the PixArm moves farther and almost as easily as an iMac's neck, and provides nearly endless viewing options.

—Niko Coucouvanis



PixArm brings iMac-like display flexibility to Power Macs.

COMPANY:

Marathon Computer

CONTACT:

800-832-6326, www.marathoncomputer.com

PRICE:

\$275 to \$369

REQUIREMENTS:

Apple Cinema or Studio Display, or flat-panel monitor with VESA-compliant mounting bracket

GOOD NEWS: Simple to set up, adjust, and position. Huge range of motion.

BAD NEWS: Apple Cinema Display version not as slick.

MacAddict RATED
GREAT

COMPANY:

ATI Technologies

CONTACT: 905-882-2600,

www.ati.com

PRICE: \$399

REQUIREMENTS:

Power Mac G5, Mac OS 10.2.8 or 10.3.3 or later, 512MB RAM (19-inch or larger display recommended)

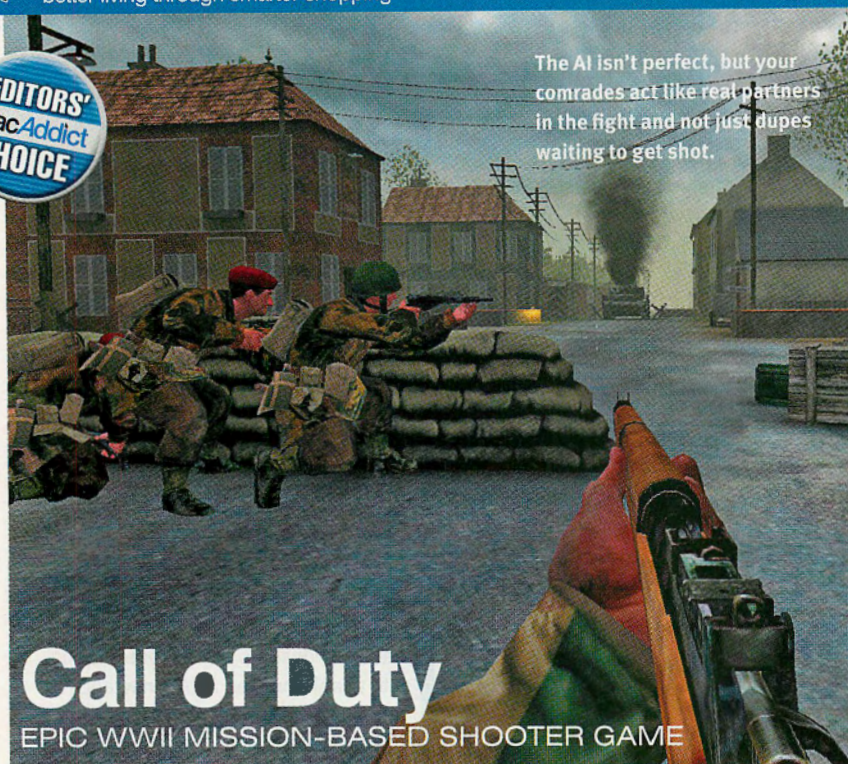
GOOD NEWS: Enables full bells and whistles in new games.

BAD NEWS: Doesn't provide faster game framerates.

Included manual and software are old, mismatched, and wrong.

MacAddict RATED

GREAT



The AI isn't perfect, but your comrades act like real partners in the fight and not just dupes waiting to get shot.

Call of Duty

EPIC WWII MISSION-BASED SHOOTER GAME

Although we've thoroughly enjoyed World War II shooters such as *Return to Castle Wolfenstein* and the *Medal of Honor* series, we wondered whether there was room for yet another entry in the genre. After playing *Call of Duty*, our answer is a resounding "Yes!" Hardly a me-too game, *Call of Duty* is as perfect a mission-based shooter as we've seen yet, blending high-drama history—from the airdrops in Normandy to the Battle of Berlin—with white-knuckle action.

If you've played *Medal of Honor*, you'll feel right at home with *Call of Duty*'s missions. Some emphasize all-out shootouts, others let you flex your sniper muscles, and still others put you in a speeding vehicle or in the lead of a tank squad. Bonus: There's the obligatory sneak-around-in-a-Nazi-uniform mission as well. But *Call of Duty* takes those familiar missions and pumps up the realism in every respect.

Case in point: The game emphasizes

team scenarios, where you fight alongside AI-controlled soldiers that can both watch your back and take the lead. Thanks to this army-of-many approach, you feel less like a video-game superhero and more like one of the guys (sure, one of the *better* guys, but still one of 'em). Fighting in numbers also sets the stage for some intense, all-out firefights. One takes place at a bridge in France as you and a squad of about ten other mates hold off a German thrust. Everywhere you look there's action—characters yelling to one another, firing frantically,

scrambling for cover, falling back. It's cinematically beautiful.

That realism is heightened by a gritty, realistic look, thanks to detailed textures and subtle, moody lighting. A tweaked Quake 3 engine also renders some truly epic landscapes—from sprawling train yards to picturesque countryside. The masterpiece, however, is war-torn Stalingrad—it's simply overwhelming, with bombed-out buildings stretching miles into the distance, scores of troops charging machine-gun nests, and strafing planes overhead. Our one complaint: *Call of Duty*'s world, like *Medal of Honor*'s, is totally devoid of civilian noncombatants. Given the game's attention to realism, this seems like an oversight.

CoD also pushes the realism envelope when it comes to controlling your character. One cool innovation is that you can crawl on the ground to either make yourself a smaller target or quietly creep up on an unsuspecting enemy. You can also shoot almost any weapon two different ways: from the hip, which lets you run and gun, or at eye level for more precision, though it's harder to maneuver this way.

The game's AI is generally present and accounted for. Enemy and Allied soldiers know how to use crates, sharp corners, and door thresholds for cover, peeking out from behind to take a quick shot, and then ducking back into safety. We did, however, see occasional chinks in the AI armor, such as Germans sometimes

forgetting to run when you toss a grenade (no wonder they lost). Also, enemies don't seem to have much flanking ability—in a firefight, we rarely worried about Jerry creeping up from behind.

Still, these oversights stand out because the game is so good otherwise. Fact is, *Call of Duty* is the best re-creation of WWII we've seen yet. Even if you're not big on the history, this game's easily worth it for the furious action alone.

—Helmut Kobler



War-torn Stalingrad is one of many stunningly realistic environments to explore in *Call of Duty*.



COMPANY: Aspyr Media
CONTACT: 888-212-7797,
www.aspyr.com
PRICE: \$49.99

REQUIREMENTS: 867MHz G4 or faster,
Mac OS 10.2.8 or later, 256MB RAM, Radeon
7500 or GeForce2 video card or better (32MB
VRAM), 1.4GB disk space

GOOD NEWS: Tons of well-paced action. Beautiful, epic
landscapes. Extra character controls give you more tactical
options. Great music.
BAD NEWS: Occasional AI glitches.

MacAddict RATED
AWESOME

*ist D

ERGONOMICALLY CHALLENGING 6.1-MEGAPIXEL SLR CAMERA

The new 6.1-megapixel *ist D may have a dorky name—Pentax says the asterisk stands for any term that, when combined with *ist*, describes one who excels at something (for example, photojournalist, accordionist, or otorhinolaryngologist)—but this digital SLR (single lens reflex) camera is no dork when it comes to picture quality. Plus, it's one of the most lightweight (just two pounds with batteries) and compact digital SLRs on the market, and noticeably sturdier than Canon's EOS Digital Rebel (Reviews, Mar/04, p48). Small hands will love it, but the *ist D's grip, focus ring, diopter control, and other controls will make using it hard for the ham-handed.

The *ist D has a full range of advanced controls—aperture and shutter priority, manual exposure and focus, and more—but you don't have to know an f-stop from a bus stop to take great pictures. By setting a few dials to their green-colored positions, the camera becomes a sophisticated point-and-shooter with

the advantage of allowing you to precisely compose your shots by looking through the optical viewfinder.

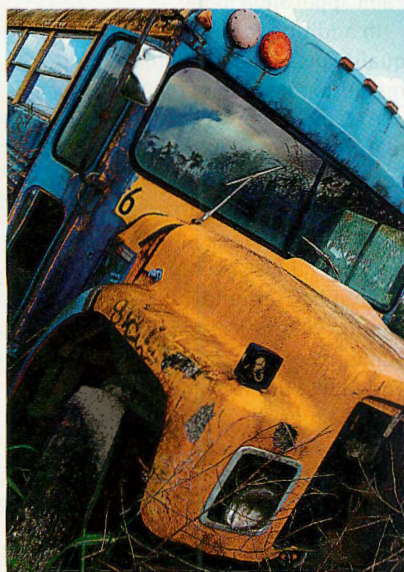
Reminder: As with most digital SLRs, you can't preview your images on the *ist D's 1.8-inch color LCD—it's only for reviewing your shots.

We found the camera's controls tolerably well organized, with dedicated buttons for almost every critical function. The four-way rocker switch, however, was a hassle to operate. A large lip surrounding the switch makes it awkward to use—we repeatedly made wrong selections as a result. Using the exposure compensation button wasn't easy, either—it's tiny. Pressing it with our thumb while spinning a control dial with our third finger (all the while trying to keep our forefinger on the shutter release) wasn't our idea of fun. Another challenge was removing the CompactFlash memory card from the camera. The access door doesn't open far enough for easy access, the eject button only pops up the card a smidgen, and the lip of the card faces the wrong way so you can't use your fingernail to pull it all the way out.

On a more positive note, the *ist D focuses quickly, has a half-second shot-to-shot time, a good burst mode (five shots in 1.7 seconds), and its built-in flash can easily reach out to 15 feet. It also has a flash shoe for a more-powerful external flash and a socket for plugging in studio strobe lights. Our four AA batteries lasted good long time—the battery indicator showed that our Quest



Pentax's digital SLR takes great photos, but you've got to work for them.



The *ist D can capture both strong and subtle colors accurately, as shown in the yellows and blue tones of this bus.

Platinum NiMH rechargeables were still juiced after shooting 400 frames.

Photo image quality was excellent: Colors were right on, the ISO range was more than adequate (200 to 3,200), and its top shutter speed of 1/4,000-second will freeze even the fastest action. The camera can also shoot up to five multiple exposures on a single frame, which is great for augmenting fireworks, superimposing a moon, or dabbling with creative effects. Better yet, you can use almost every lens Pentax has ever made—even early screw-mount lenses (with an adapter)—with the *ist D. This is a huge plus, considering that older Pentax lenses are of excellent quality and can be found for a song.

While the *ist D has its share of physical quirks, they don't completely eclipse its many virtues. If you're looking for a compact digital SLR that takes great photos and won't make you feel like an albatross is hanging from your neck, the *ist D might be for you.—Arthur Bleich

PHOTOGRAPH BY ARTHUR BLEICH

PHOTOGRAPH BY MARK MADEO



COMPANY: Pentax
CONTACT: 800-877-0155,
www.pentax.com
PRICE: \$1,399 (body), \$199 (18mm to 35mm lens)

REQUIREMENTS: USB-
 equipped Mac, Mac OS 8.6 to
 9.x or 10.1 or later

GOOD NEWS: Compact. Excellent picture quality.
 Long AA-battery life. Good flash options.
BAD NEWS: Small grip. Some awkward button
 functions. Memory card hard to remove.

MacAddict RATED

SOLID

Palm Zire 72

CUTE LITTLE MULTIMEDIA PDA

The Palm Zire 72 is a great improvement over its picture-shooting predecessor, the Zire 71. Unfortunately, Mac users aren't privy to all the Zire 72 has to offer.

Like the original, the Zire 72 can take supersecret paparazzi photos (well, secret until you sell them to the *National Enquirer*) with its subtle built-in camera. But now the Zire features a higher-quality 1.2-megapixel camera, which blends so seamlessly with the device that all you have to do is press the camera button to switch to picture-taking mode, then aim and shoot—you had to slide open a lens cover before you could shoot with the Zire 71. When you sync your Palm to your Mac, pictures magically appear in your

user's Pictures folder.

Also new is the ability to record 320-by-240-pixel video clips complete with sound. When you're in camera mode, tap the video-camera button to start recording. But get used to viewing those clips on the Zire—while video will transfer to your Movies folder, your Mac can't play them because the Mac version of Windows Media Player doesn't support the codec that Palm uses (ASF). Rude, we say.

To complete the multimedia triumvirate, the Zire 72 also plays MP3 files via its built-in RealOne player. To move MP3 files to a Zire, drop them onto the included Send To Handheld droplet app for installation the next time you sync. Just make sure to pick up an SD card first—you can't install MP3 files on the device's 32MB of internal memory, only on a memory card.

While MP3 playback isn't new, voice recording and built-in Bluetooth are. To record lectures, notes, or whatever, press the voice-recorder button on the



Aim and shoot—the Zire 72's integrated cam is perfect for gym locker rooms...uh, we mean walks through the park.

side of the device—the next time you sync, that voice memo appears in your Palm application folder.

In addition to taking much higher-quality pics (1,280-by-960-pixel resolution instead of the previous max of 640 by 480 pixels), the Zire 72 now features a 2x digital zoom, effects such as sepia and black-and-white pics, and the ability to add a picture to an address-book entry on the spot. Very cool. Plus you can set a picture as your background in both home and agenda views—agenda gives you a summary of your day's appointments and tasks. Unfortunately, shutter lag still plagues the Zire—it takes the picture a good second or two after you click the button. Get ready for a lot of car-in-frame and cat-running-away pictures.

Despite its flaws, we still enjoy the Zire 72. We just wish that the Mac users didn't get short shrift on features.

—Cathy Lu



Annie Liebowitz wouldn't be proud of this shot, but we think the Palm Zire 72 takes OK photos.

PENNY-PINCHER'S PALM

If you thumb your nose at all of this multimedia hoo-ha, consider a cheaper alternative: the new Zire 31. For \$149, you get a color PDA that can handle all of the basic calendaring and contact functions that PDAs were originally built for.

The Zire 31 has a smaller, lower-quality screen than the Zire 72 (160 by 160 pixels as opposed to 320 by 320). In a side-by-side comparison, the 31's screen is much less detailed and more pixelated than the 72's beauteous display. But whaddya want for \$149? And the Zire 31 does have a few notable features—namely the ability to play MP3s, an SD expansion slot (which you need since you must store MP3s on an expansion card), and a photo viewer. You can also attach a picture to any contact as well as look at your calendar in the new Agenda view.



The Zire 31 costs half as much because it does half as much.



COMPANY: PalmOne
PRICE: \$299
CONTACT: 800-881-7256,
www.palmone.com

REQUIREMENTS: Mac OS 9.2.2 or 10.2 or later, USB port, SD card (not included but required for multimedia functions)

GOOD NEWS: Decent-quality pix. Now records video. Even better form factor.
BAD NEWS: Shutter lag's a drag. Video files don't play on a Mac.

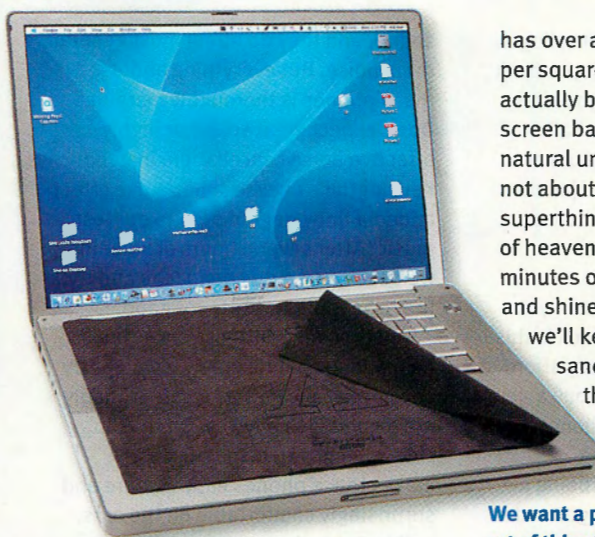
MacAddict RATED
●●●●●
SOLID

Notebook ScreensavRz

MIRACLE-FABRIC NOTEBOOK SCREEN PROTECTOR

Have you looked at your PowerBook's display lately? We mean *really* looked at it? That sucker collects dust and grime like your navel does lint. And that's not to mention the dings the keyboard can leave if you accidentally squeeze your 'Book too tightly (or if you own a Titanium G4 PowerBook). RadTech's Notebook ScreensavRz solves both problems—and does so with style.

Though it's available in various colors (Titanium, Aqua, Black) and an animal-print Shagwire pattern, with optional Apple logos (PowerBook, iBook, or X), what makes the ScreensavRz work is its Optex fabric, which RadTech claims is designed specifically for cleaning LCD screens. RadTech also claims that Optex



has over a million fibers per square inch and can actually buff a damaged screen back to its natural unscuffed state—we're not about to count the fibers, but it's superthin and superlight, a little swath of heaven for our PowerBook. Five minutes of light rubbing cleaned and shined our screen right up, and we'll keep it pristine longer by sandwiching the cloth between the display and the keyboard.

—Niko Coucouvanis



We want a pair of boxers made out of this stuff.

X
9

COMPANY: RadTech
CONTACT: 314-960-9188,
www.radtech.us
PRICE: \$13.95 to \$17.95

REQUIREMENTS: PowerBook,
iBook, or something else precious
enough to swaddle

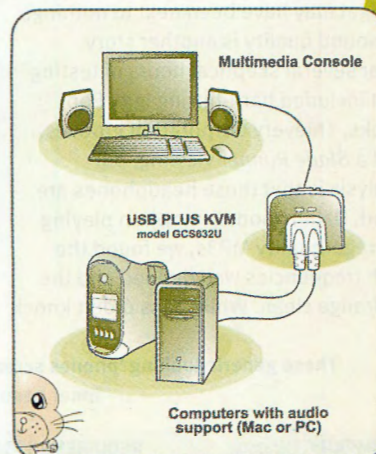
GOOD NEWS: Screen protection, cleaning, and
refinishing in one.
BAD NEWS: Pricey for a piece of cloth.

MacAddict RATED
●●●●●
GREAT

A marriage made in heaven

It's the perfect marriage of Mac and PC. IOGEAR's MiniView™ Micro USB PLUS KVM Switch joins these two platforms together in a state of uninterrupted bliss, enabling you to access your systems - including audio - from a single monitor, keyboard and mouse. For better or for much better, IOGEAR's MiniView™ Micro USB PLUS KVM saves desktop space while empowering you to easily switch between your computers with simple keystrokes.

Contact IOGEAR today for more info on this honorable institution.



IOGEAR®
http://mac.iogear.com
IOGEAR Inc. 23 Hubble Irvine, CA 92618
P: 949.453.8782 ext. 2003

Noise Canceling Headphones

HO-HUM HEADPHONES

It's finally happened: Sound-canceling headphones, which usually set you back at least a hundred bucks, have gone low-budget. As an antidote to office chatter, loudmouths in the library, and hours of jet-engine whine during weekend jaunts to Tokyo, noise-canceling headphones produce subtle (ideally inaudible) frequencies intended to negate environmental noise. Unfortunately, you usually get what you pay for—which in this case ain't much. If you can actually afford a Pan-Pacific weekend getaway, buy a better pair of noise-canceling 'phones.

Kensington's Noise Canceling Headphones stop just short of being a total disappointment—they do generate decent-quality but unimpressive

sound, and they do offset most general room noise. But everything about these phones is thoroughly marginal. Don't expect great sound or highly effective noise cancellation. Instead, Kensington's *inverse sound wave* effect added a tinny degradation to our test music. After several hours of listening, we developed a dull headache and took these headphones off—for good.

Another general annoyance: The headset doesn't fit snugly, so don't try any noise-canceled jogging—probably not a good idea anyway. On the flip side, an innovative folding design makes these phones easy to store and surprisingly comfortable on the ears.

Kensington's first crack at noise-



Cancel less noise for less cash.

canceling voodoo may be a step in the right direction, but it's a pretty feeble baby step.—Noah Tsutsui



COMPANY: Kensington
CONTACT: 831-465-9898,
www.kensington.com
PRICE: \$39.99

REQUIREMENTS:
Audio device with minijack

GOOD NEWS: Folds up for easy stowage. Cheap.
BAD NEWS: Noise cancellation dishes up a subtle headache. Unimpressive sound.

MacAddict RATED
○○○○○
SO-SO

HFI-15G

LIGHTWEIGHT WONDER-PHONES

The HFI-15G is a great example of function over form. As Ultrason's promo material pleads, "Indeed, it looks like hundreds of its fellows in the store. But please don't miss experiencing this innovation." Missed it, we have not! While the HFI-15G's industrial-design budget may have been next to nothing, its sound quality is another story. After several skeptical hours of testing that included hard-hitting Iggy Pop tracks, Thievery Corporation grooves, and a *Blade Runner* viewing, our analysis is that these headphones are good. Damn good. Even when playing average-quality MP3s, we found the high frequencies well defined and the midrange clean. While bass didn't knock

quite as hard as we'd like, most hip-hop and well-produced electronic-music tracks held up at the low end.

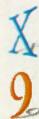
Ultrason attributes the HFI-15G's broad range to the company's S-Logic



Natural Surround Sound System, which simulates surround sound and wrangles more volume out of less sound pressure. The sound comes out rich and warm—and try as we might, we couldn't push these 'phones loud enough to make us fear for our hearing. Connected to an iPod, the HFI-15Gs were slightly louder than Apple's earbuds and offered a cleaner sound, with better-balanced highs, mids, and lows.

These phones feel dreamy—superlightweight with big, padded ear cushions. We could wear them all day. The 10-foot cord is ideal for home or studio use, but it's way too long for convenient portable use. The HFI-15G is great for music, movies, games, and even some casual audio and video production. Just don't trip on the cord.—Noah Tsutsui

These generic-looking 'phones scream inner beauty.



COMPANY: Ultrason
CONTACT: 615-599-4719,
www.ultrasonusa.com
PRICE: \$99

REQUIREMENTS:
Audio device with minijack

GOOD NEWS: Warm sound. Lightweight. Gentle on your ears.
BAD NEWS: Utilitarian-looking at best. Cord too long for iPod use.

MacAddict RATED
○○○○○
GREAT

USB Server

USB-SHARING DEVICE

Although USB is great for linking peripherals to a single Mac, until now it's been of limited use in a networked environment. Apple's USB Printer Sharing works well, but only for printers. Keyspan's USB Server bridges the gap between Ethernet and USB so you can share other USB devices over the network. Just keep in mind that it's not a traditional print server—only one user can connect to a device at a time—and that Keyspan suggests (and supports) using the device only with USB printers, scanners, multifunction printers, and input devices.

We installed the included software (required for connecting to the server), then dropped it in our Library > StartupItems folder to make printing via



Keyspan's USB Server lets you share more than just printers—but you have to be polite and wait your turn.

the USB Server transparent—in a single-user environment, anyway. Networked users, however, must take turns using the provided software to connect to and disconnect from the USB Server. Keyspan says planned software upgrades will automate this process, but the current one-user-at-a-time limit is a drag.

For our tests, we plugged the USB Server into an Ethernet hub on a home

network and attached a multifunction Epson Stylus Photo RX500 scanner, printer, and copier to the USB Server. We scanned and printed from a PowerBook G4, seamlessly transferring data via Airport to our Ethernet network, then to the

USB Server connected to the RX500—all with no perceptible speed difference compared to a direct USB connection. As expected, we observed similarly seamless operation over a direct Ethernet connection.

Not everyone needs this type of widget, but it's a solid tool for centralizing a small workgroup's USB devices.—Tom Lassiter



COMPANY: Keyspan
CONTACT: 510-222-0131,
www.keyspan.com
PRICE: \$129

REQUIREMENTS: Mac OS 10.2.8
or later

GOOD NEWS: Makes centralizing expensive peripherals easier.

BAD NEWS: Not USB 2.0. Limited to one user at a time.

MacAddict RATED



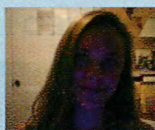
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PHOTOGRAPHY BY SAMANTHA BERG

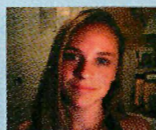
SightLight

DIM iSIGHT LIGHT

What a disappointment. When we heard that Griffin had taken eight white LEDs, mounted them in a circular housing designed to slip over the barrel of Apple's iSight FireWire cam, and added an ambient-light sensor to automatically adjust the intensity of the LEDs in low-light situations, we couldn't wait to try one out. After we installed the SightLight and tried it out in a couple of iChat AV videoconferences, however, we



An iChat AV videoconference in a room lit only by an overhead light needs help.



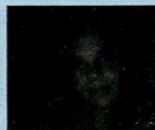
A desk lamp with a standard 40-watt bulb helps considerably.



The SightLight gives our subject a blue complexion.



In a darkened room, the desk lamp provides decent illumination and good color.



In the same darkened room, the SightLight is a near-total blackout.

couldn't wait to get rid of it and return to our previous iChat AV lighting system: a cheapo 40-watt desk lamp.

First the good news: The SightLight is a snap to set up and cleverly piggybacks its power from the iSight's FireWire cable. Once installed, however, the bad news begins. The ambient-light sensor turns on the SightLight even in relatively well-lit rooms and has a tiny range from off to fully on—luckily, you can disable the ambient light sensor.

When turned on, the SightLight is an annoying presence, shining directly in your eyes. The light it casts gives your face a dim blue pallor, especially when supplemented by room lighting—not flattering. In a totally dark room, the blue cast is not as noticeable, but the light is unacceptably dim.

Over the years, the engineers at Griffin have turned out some fine products—but the SightLight isn't one of them.

—Rik Myslewski



Great idea.
Lousy execution.



COMPANY: Griffin
CONTACT: 615-399-7000,
www.griffintechnology.com
PRICE: \$39.99

REQUIREMENTS: Mac OS 10.2 or
later, 2MB RAM, 8MB disk space

GOOD NEWS: Compact. Easy to set up.

BAD NEWS: Dim. Casts bluish tint.

MacAddict RATED



LOUSY

Unity Synth Expander 1

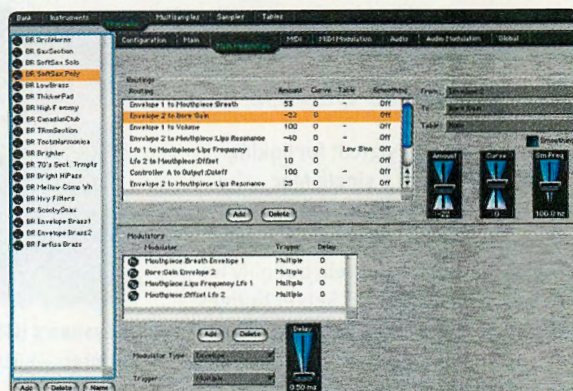
FORGETTABLE AUDIO SYNTHESIZER

There are so many high-quality software synthesizer packages available today that it's hard to figure out which ones are worthy of consideration. Here's a head start: Unity Synth Expander 1 isn't one of them. While it includes six different types of modeled sound-creation systems, none of them is particularly good. In fact, a few are just marginally better than bad.

The problem here is not the selection of synths and effects, it's the overall audio quality. The brass module sounds tinny and unconvincing—almost embarrassingly so. The electric pianos are thin and don't respond well to dynamic playing styles, a key criterion for virtual Rhodes electric

piano performances. The wavetable synthesizer has some cute presets but is weak compared to a venerable Wavestation A/D MIDI module. Our original DX-7 blows away the FM synthesizer, even though it's almost 20 years old. The output levels of all the synths also seem lower than those of any other software synth we've tested, which wreaks havoc on noise levels when you're blending Synth Expander into the mix with other instruments.

If you're looking for a well-rounded



Synth Expander provides a great degree of control over your audio routings, but its sound quality is sometimes anemic.

box of aural tricks, we suggest trying Native Instruments' Reaktor Session (\$289, www.native-instruments.com) instead. It offers more variety, higher audio quality, and more expandability.

—David Biedny



COMPANY: BitHeadz
CONTACT: 831-465-9898,
www.bitheadz.com
PRICE: \$199

REQUIREMENTS: G3, Mac OS
8.6 or 10.1 or later, 256MB RAM

GOOD NEWS: Decent programmability and effects modules. Excellent plug-in compatibility.
BAD NEWS: None of the synthesis modules sounds very good. Low output levels.

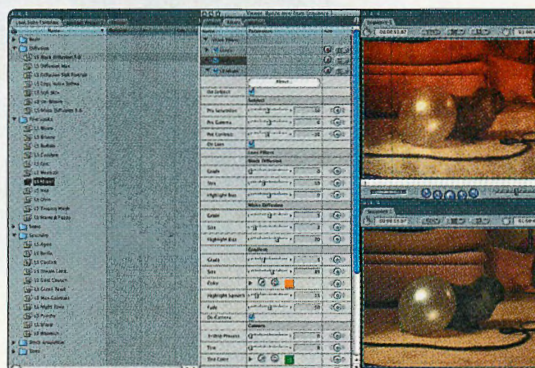
MacAddict RATED
●●●●●
SO-SO

Magic Bullet Editors

FINAL CUT PRO PLUG-IN CREATES RETRO DISTRESSED LOOK

Although we're deeply entrenched in a DV revolution, the perception that celluloid film is inherently superior isn't going away soon. Once the proprietary in-house tool of the Orphanage (a postproduction firm started by Industrial Light + Magic refugees), the Magic Bullet Editors plug-in suite for Apple's Final Cut Pro delivers industrial-strength tools for softening and color-correcting digital video, and imparts a slick, analog sheen to existing DV footage.

The primary tool is Looks Suite, a filter with extensive customization controls and 50 predefined visual styles, or Looks. These presets cover a wide range of effects, and chances are good you've seen some of them used on television and in films. The bleached-out appearance of *Saving Private Ryan*, the blue- and yellow-tinted segments in *Traffic*, even old-style Technicolor as



Magic Bullet Editors can give clean footage (lower frame) a tinted, scratched, retro look (upper frame).

seen in classics like *The Wizard of Oz* are all a single mouse-click away. And we're not talking about simple color tinting—there's some sophisticated technology under the hood. The results are far better than applying tint layers

to video, an old After Effects trick. Plus you can tweak all of the included presets to suit your own desires.

The Misfire effect is a wonderful added bonus—it alone might be reason enough to get Magic Bullet. Scratches, noise, blotches, and flickering all work together to make pristine DV footage look like old, gnarly film left out in the sun for a year or 20. The resulting effect is extremely organic and convincing—we never

had as much fun shredding digital video.

While it's pretty specific in its abilities, Magic Bullet Editors is the kind of visual flavoring you may find addictive—like cooking with garlic.

Yummy!—David Biedny



COMPANY: Red Giant Software
CONTACT: 260-625-5343,
www.redgiantsoftware.com
PRICE: \$299

REQUIREMENTS: G4, Mac
OS 10.2, 512MB RAM, Apple
Final Cut Pro 4.1

GOOD NEWS: Unique color-correction tools and visual effects. Extensive controls. Misfire rocks.
BAD NEWS: Somewhat hefty system requirements. Only works with Final Cut Pro (Avid Xpress support planned).

MacAddict RATED
●●●●●
GREAT



Space Colony

NON-SIMS SIM GAME

This place may look pleasing enough, but the colonists are restless and it's your job to cheer them up.

Take the life-management nature of The Sims, mix in some global management à la Sim City, throw in some real-time strategy, stage it all in a galaxy far, far away, and you've got the gist of Space Colony. Although this game seems to have it all—and it does keep you engaged on many levels—it simply lacks that certain *je ne sais quoi*.

In Space Colony, you manage a team of oddballs while trying to accomplish the goals of your current mission. Missions include stockpiling nutrients, getting your colonists to a specified happiness level, and mining a certain amount of iron. Meanwhile, you have to ensure that your base runs smoothly by assigning colonists to tasks such as cleaning, or generating power and oxygen. You also have to keep the colonists happy by making sure they get enough sleep, food, and human interaction (among other things). While managing individual

colonists should appeal to fans of The Sims, it's just not as fun in Space Colony. Plus, in later levels, controlling both individuals and mission goals can get frenetic and a bit much to manage, especially if you set the three-tiered difficulty level to the highest setting.

The game also has a galaxy mode, which consists of a bunch of quick, single-mission challenges—for example, you might have to get a colony up to a certain happiness level while starting with zero credits (meaning you have no moola to buy stuff).

But fun-spoilers abound. First, there's only one view; you can't zoom in on the action or rotate the view. Next, placing and clicking objects is a little hit-and-miss—even for those of us who have been using a mouse for 20 years. Finally, while the game tries to present colorful characters, most are merely annoying stereotypes, such as the country hick,

dumb blonde, and crotchety Chinese engineer with a bad accent.

What we do like about Space Colony are the different ways in which you can play the game. A single-player campaign follows the story of the heroine, Venus, and accomplishing each mission opens up other missions and galactic locales. Within the main story you can choose to follow either a military- or economic-based campaign. The military campaign involves challenges such as getting Venus safely to a base while she's under attack by alien rodents, with only robot dogs as her protectors. The economic campaign involves missions like mining titanium faster than the opposing base.

Space Colony is definitely a decent way to pass time. It's fun and the universe is engaging while you're in it—but once you come back to Earth, you won't necessarily feel compelled to go back to revisit the colony. —Cathy Lu



COMPANY: Aspyr
CONTACT: 512-708-8100,
www.aspyr.com
PRICE: \$29.99

REQUIREMENTS: 733MHz G4
or faster, Mac OS 10.2.8 or later,
256MB RAM, 1GB disk space

GOOD NEWS: An interesting spin on a Sim-style game.
Lots of depth and replayability.
BAD NEWS: Requires too much micromanagement.
No zoom or rotate views. Stereotyping is annoying.

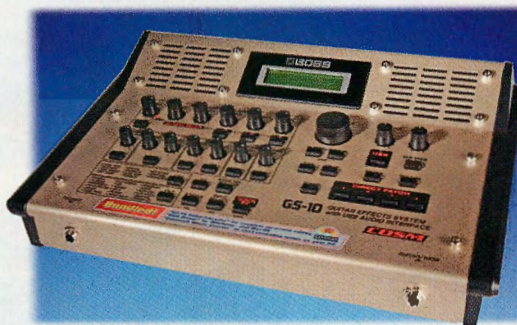
MacAddict RATED
●●●●●
SOLID

GS-10 Guitar Effects System

POTENT USB AND MIDI INTERFACE

The Boss GS-10 Guitar Effects System is a high-tech music gadget with a low-tech twist. This sophisticated USB and MIDI guitar, bass, and vocal interface comes with a battery of built-in effects, convincing amp models, and a useful array of ports—but what sets it apart is a pair of built-in stereo speakers. That may not sound like such a big deal, but if you're a finicky musician this feature is a huge time-saver. You can tweak your sound before getting into the nuances of your recording software or monitor your sound if your Mac isn't equipped with decent external speakers.

To achieve its effects, the GS-10 uses Boss's celebrated COSM (Composite Object Sound Modeling) technology and features 48 amp models, such as the Fender Twin Reverb, Vox AC-30



The Boss GS-10 sports old-school knobs, feel-good amp models, and built-in stereo speakers.

TB, Marshall Stack, and Mesa/Boogie Dual Rectifier. You can select any of these and apply up to 11 simultaneous effects, including chorus, delay, overdrive, compression, auto wah, tremolo, feedbacker, phaser, rotary, and

vibrato. Combinations are stored in patches—200 are preset, and you can store 100 more of your own.

We had no trouble getting sound into GarageBand and noticed very little latency. MIDI worked fine, the balanced-microphone input sounded great, and an auxiliary input let us play along with an external source. The controls are simple to use, although in some cases multiple functions for one knob can be confusing—you might think you're adjusting the USB audio output, for example, when you're actually changing an effects patch. Despite these minor glitches, the GS-10 is a great little box.—John Poultnery



COMPANY: Boss
CONTACT: 323-890-3700,
www.bossus.com
PRICE: \$595

REQUIREMENTS: USB-equipped
300MHz G3 Mac or faster, Mac OS
8.6 or later

GOOD NEWS: Nice amp models and effects. Built-in speakers.
S/PDIF digital audio out.

BAD NEWS: Multifunction knobs can be confusing.

MacAddict RATED
GREAT

PHOTOGRAPH BY SAMANTHA BERG

Change My image

ONE-TRICK-PONY HAIRSTYLE SIMULATOR

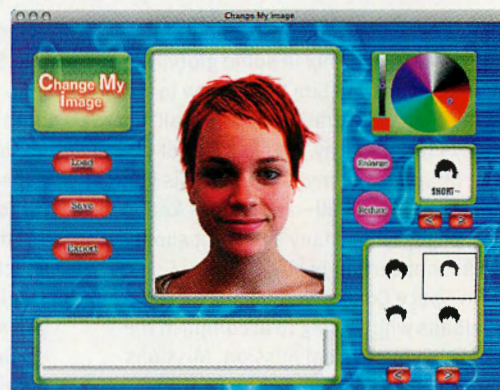
Have you always wanted short green hair instead of long brown hair but never wanted to risk hacking it all off? If so, Change My image is the tool for you—you can use it to find out whether your features look better with a purple 'fro or curly yellow mop *before* you take the plunge.

Installing Change My image is a two-step process: First you install the app—which requires that you use Classic mode if you're running OS X—and then you unstuff the HairData folder and drag it into the Change My image folder. From there, you can play with hairstyles using either a headshot of yourself or one of the seven included models.

After uploading our photo and sizing it to fit the supplied hairstyles using the

Enlarge and Reduce buttons, we immediately started trying on the shorter styles for a radical makeover. The short, red-haired look was a hoot and a half, we gotta say. We also gave our subject green punk-rock hair, long orange curls, and shoulder-length frizzy purple hair. While more than 100 styles are available, the hair texture on most isn't realistic-looking. Worse, it was nearly impossible to make hair color look natural—it was almost always blatantly brassy.

Once we tired of changing hairstyles, we asked, "What's next?" The answer was simple: nothing. All in all, Change My image is limited and not terribly original—we've tried other makeover



With one click, we transformed our model by replacing her long blonde locks with short, red, punk-style hair.

software with more options. Also, Change My image won't help you much if you truly want to change your image—though we're sure that Cher, Dolly Parton, and Marv Albert would beg to differ.—Roxanne Myslewski



COMPANY: Infinisys
CONTACT: +81 22 216 4038,
http://en.infinisys.co.jp
PRICE: \$10

REQUIREMENTS: Mac OS 8.6
or 9.x or 10.1 or later, 15MB RAM
(OS 8.6 or 9.x) or 128MB (OS X),
QuickTime 5 or later

GOOD NEWS: Fun. Might be useful for a punk stylist.
BAD NEWS: Poor hair-color control. Not much bang
for your buck.

MacAddict RATED
SO-SO

Shrek 2

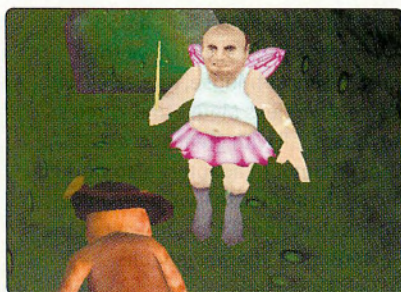
STRAIGHTFORWARD ARCADE-STYLE ACTION GAME

That smelly green ogre is back, first in the animated sequel to the insanely popular *Shrek* movie, and now in an ogeriffic action-adventure puzzler. With characters like an evil Fairy Godmother and Roy the Save Fairy—a Brooklyn garbage man dressed in a tank top and tutu who appears at save points throughout the game—it's twisted enough to keep even big kids entertained.

The game starts with you as Shrek, cavorting around the fairy-tale land of Far Far Away with Donkey, a jive-talking jackass who provides hints on where to go next and how to get around obstacles (or combo-punch your way through them), and who even whips out health-rejuvenating Energy Bars for your snacking pleasure, which at least partially redeems his constant jibber-jabber.

But suddenly your player perspective switches, and you continue the game as the Donkey. This change is unexpected and confusing for a moment, but the basic controls for moving, jumping, punching (or kicking), and using items remain the same. The developers call this multicharacter model an *automated buddy system*, and it makes the game more fun. With four characters (Shrek, Donkey, Puss in Boots, and the Giant Gingerbread Man), you've got a well-rounded team, but you don't get to team-manage—the game decides who plays when (for example, you become the gingerbread giant when it's time to knock down walls and storm the castle). We'd prefer to pick the character we play, but unfortunately, that's not an option.

Next, you encounter Puss in Boots, a swashbuckling feline who the king has sent to kill you. A challenge ensues, in which a ring of poles sprouts



When you see Roy the Save Fairy, run up to him to save your game.

up around you, while outside the ring Puss in Boots jumps in and out of the ring from surrounding tree stumps to claw up your bald head. Your health can survive about ten clawings, but fighting back isn't easy. We haplessly punched at the airborne cat for a long time before figuring out the secret: When Puss hops off one stump to go to another, punch the ground—you're an ogre after all, so you can shake the cat temporarily senseless doing so. Thankfully, most of the puzzles are either easier to figure out or provide some clues to point you in the right direction. Once you finally defeat Puss, he joins you as a faithful companion—and just as you played the game as Donkey, you soon play the game as PiB.

If you can't get enough of Shrek and his movie pals, you'll be on this game like green on ogre. The game's packed with settings and scenes from the movie, which string together bouts of bashing bad guys; jumping between lily pads, bridges, stumps, and so on; collecting coins and other trinkets; and solving puzzles. If you're not a Shrek-head, don't bother—the game is short enough that by the time you warm up to the characters, it's over. —Niko Coucouvanis

COMPANY: Aspyr Media
CONTACT: 800-235-6708,
www.aspyr.com
PRICE: \$29.99

GOOD NEWS: Family fun with some attitude.
BAD NEWS: Jive-talking jackass gets annoying.

REQUIREMENTS: 700MHz G3 or faster, Mac OS 10.2.8 or later, 256MB RAM, 800MB disk space, 3D graphics card with 32MB VRAM

MacAddict RATED
○○○○○
SOLID

PRINZETTM

COLOR INKJET & PHOTO PAPERS FOR DIGITAL CAMERAS



★★★★★
PROFESSIONAL GLOSSY,
265gsm



★★★★★
SUPER GLOSSY,
170gsm



★★★★★
SILKY SEMI GLOSSY,
260gsm



★★★★★
PHOTO PROFESSIONAL MATT,
190gsm



★★★★★
PHOTO MATT,
140gsm



★★★
MATT,
95gsm

- ◆ Compatible To All Inkjet Printers
- ◆ Sharp And Brilliant Color Images
- ◆ High Resolution Up To 2880dpi
- ◆ Excellent Prints For Digital Camera Photo
- ◆ Water Resistant
- ◆ Instant Dry

Distributors/ Agents Are Welcome

TELE-PAPER (M) SDN BHD
Email: info@telepapers.com
Website: www.telepapers.com

PocketMouse Bluetooth

FRIENDLY WIRELESS MOUSE

After scoffing at the technology for months, even years, we're warming up to Bluetooth—partly because it's built into our PowerBooks, partly because of new peripherals like Kensington's latest PocketMouse Bluetooth. It's larger than most designated portables but small enough to bring along, yet we can use it all diddly day long at the desk with no more discomfort than the next mouse inflicts.

If your Mac's not already Bluetooth

enabled, Kensington sells a USB adapter for \$49.99, which we tried with the PocketMouse, as well as with Apple's Wireless Mouse and Wireless Keyboard, all with great success. Other Bluetooth adapters also worked fine with the mouse—we tried units from Belkin and D-Link, as well as the PowerBook's internal module.

Two AA batteries power the sleek little beast, and they endured a good two weeks of daily use. The only real drawback was occasionally squirrely



We like this lil' guy for both traveling and home use.

behavior for a couple of days before the batteries died. This mouse is a keeper.—*Niko Coucouvanis*



COMPANY: Kensington
CONTACT: 800-235-6708,
www.kensington.com
PRICE: \$69.99

REQUIREMENTS: Bluetooth-equipped Mac, Mac OS 10.2.8 or later

GOOD NEWS: Feels and works terrifically.
BAD NEWS: Erratic performance when batteries are weak. Pricey.

MacAddict RATED
GREAT

PHOTOGRAPH BY SAMANTHA BERG

Mariner Write 3.6.1

NOT-WORD WORD PROCESSOR

Given Microsoft Word's ubiquity, any competing word processor had better be Word-compatible. Mariner Write falls somewhere between compatible and merely congenial—it can read most Word documents and save documents in formats that Word can read, but if you plan to work collaboratively with Word users on styled documents, forget about Mariner Write.

But let's forget about Word for a moment. On its own, Mariner Write is one snappy word processor, capable of all the basics: styles and style sheets; support for graphics, tables, and multicolumn layouts; spelling checks (as you type or on demand) with user-dictionary support; a thesaurus; up to ten levels of undos; and fully customizable key commands for every option in the menus (yeah!). Plus, Mariner offers a hierarchical-list view—Word doesn't. But keep in mind that Word has a boatload (bloatload?) of unique features some of us

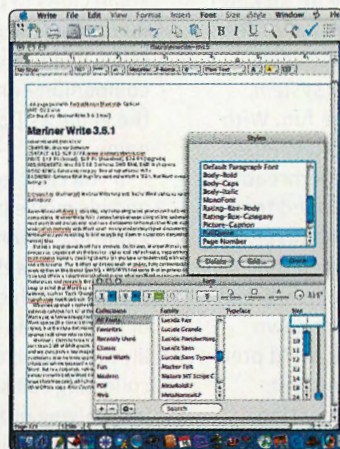
can't live without, such as Track Changes for collaborative work, noncontiguous text selection, and the superhandy new Notebook. Oh, and then there's world domination.

When we opened a native Word doc, Mariner imported the style definitions automatically—but lost all of the styles we had painstakingly applied to the document's text. Worse yet, when we reapplied the styles in Mariner and resaved that doc in Mariner's RTF For Word format option (the closest thing to a Save For Word option we could find), the text remained styled, but the style definitions disappeared. Conversely, a Word file saved as RTF and then opened in Mariner retains the applied styles, but

the style definitions go away.

Mariner's claim to fame is its low system overhead: The company claims

Write can operate with less than 2MB of RAM—quaint, and while we appreciate the antibloatware sentiment, it's 2004 and we can spare a few megabytes of RAM. There's also a version for OS 9.x where the app's svelteness may be more appreciated. Mariner Write is a fine alternative for home use or other situations where you need a capable word processor more than seamless compatibility with Word. But in a corporate setting, you'll likely want a word processor with better Word compatibility.—*Niko Coucouvanis*



Mariner Write respects basic Word styles as applied, but not style definitions.



ON THE DISC
Mariner Write 3.6.2 demo and 3.5.1 for OS 9 demo

COMPANY: Mariner Software
CONTACT: 612-529-3770,
www.marinersoftware.com
PRICE: \$79.95 (boxed), \$69.95

(download), \$24.95 (upgrade)
REQUIREMENTS: Mac OS 10.2 or later, 2MB RAM, 8MB disk space

GOOD NEWS: Relatively snappy. Free of frills.
BAD NEWS: Extreme RAM frugality went out with the '90s. Not Word-compatible enough.

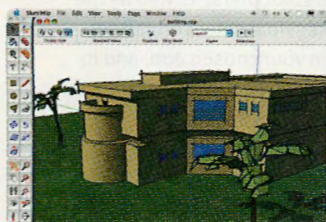
MacAddict RATED
SOLID

theHotList

THE BEST OF THE BEST FROM RECENT REVIEWS

SHOPPING?
HERE'S WHAT WE
RECOMMEND

NEW THIS MONTH



@Last Software SketchUp

According to Andrew Tokuda, SketchUp is the "easiest 3D software ever."

Sony DCR-HC20



Pro videographer Andrew Tokuda calls the DCR-HC20 "the best camcorder in the low-cost category."

LaCie Big Disk Extreme



Editor in Chief and storage junkie Rik Myslewski praises the Big Disk Extreme's "excellent performance."

OWC Mercury Pro DVD-/RW

MacAddict Reviews Editor Niko Coucouvanis says that the Mercury Pro DVD-/RW "is a great performer."



SOFTWARE

AUDIO

Ableton Live 3.0.2	\$399.00	May/04, p58	New effects, clip-level automation—all in a real-time sequencer.
Native Instruments Absynth 2	\$299.00	Apr/04, p42	This software synth can create audio magic like no other.
Native Instruments Reaktor 4	\$559.00	Jun/04, p56	If you can imagine a sound, you can create it with this synth.

GAMES

Aspyr The Sims Makin' Magic	\$29.99	Jun/04, p51	The familiar Sims series delves into black—and white—magic.
MacSoft Halo: Combat Evolved	\$49.99	Mar/04, p38	It's as awesome as your Xbox buddies say it is.
MacSoft Neverwinter Nights	\$49.99	Jan/04, p54	Flaunt your Dungeons & Dragons skills in the best RPG ever.
MacSoft Unreal Tournament 2004	\$39.95	Jun/04, p48	The best first-person shooter adds new vehicles and weapons.

GRAPHICS & LAYOUT

@Last Software SketchUp	\$475.00	Aug/04, p54	Even professional architects will value this 3D sketching tool.
Adobe Acrobat Professional 6	\$449.00	Nov/03, p50	If you're in pro publishing, this is a must-have app.
Adobe InDesign CS	\$699.00	Feb/04, p46	More features and easier navigation make layout a snap.
Adobe Photoshop CS	\$649.00	Feb/04, p44	Just when you thought Photoshop couldn't get better, it did.
Macromedia Dreamweaver MX 2004	\$399.00	Jan/04, p48	Our favorite Web-design tool adds improved CSS support.
Macromedia Flash MX 2004 Professional	\$699.00	Jan/04, p48	Don't know how to write code? Flash MX will do it for you.
Macromedia FreeHand MX	\$399.00	Jun/03, p49	In the race with Adobe Illustrator, FreeHand pulls ahead.

PRODUCTIVITY & UTILITIES

Bare Bones Software BBEdit 7.0.1	\$179.00	Mar/03, p52	By far the most powerful text editor money can buy.
FileMaker Pro 7	\$299.00	Jul/04, p46	A complete rewrite vaults this database into the big leagues.
Microsoft Office 2004	\$399.00	Aug/04, p42	Enhancements to every app add up to a worthy upgrade.
You Software You Control	\$49.95	Apr/04, p45	This menu utility increases your control over your Mac.

VIDEO & ANIMATION

Adobe After Effects 6.0	\$649.00	Dec/03, p49	This motion-graphics stud improves its 3D powers.
Apple DVD Studio Pro 2	\$499.00	Dec/03, p58	Apple's essential DVD-burning app is still the one to beat.
Apple Final Cut Express 2.0.2	\$299.00	May/04, p48	Unless you need to go Pro, Express will save you \$700.
Apple Final Cut Pro HD	\$999.00	Sep/03, p44	This kick-ass video editor now includes four new apps.

HARDWARE

ACCESSORIES

Microsoft Wireless IntelliMouse Explorer	\$64.95	Jan/04, p57	Our favorite desktop mouse adds horizontal scrolling.
RadTech BT-500 Mobile Mouse	\$54.95	Aug/04, p58	Here's the perfect mouse for Bluetooth-equipped travelers.

AUDIO & VIDEO

ADS Technologies Pyro DV Drive	\$699.00	Jan/04, p55	Record DV video directly to this mobile encoder and drive.
Canon Optura Xi	\$1,499.00	Aug/04, p38	High-end features distinguish this mid-priced camcorder.
Elgato EyeTV 200	\$349.00	Jul/04, p53	This digital video recorder will change the way you watch TV.
Logitech Z-680	\$399.95	Jul/04, p49	There's only one word to describe these speakers: awesome.
MCE Technologies QuickStreamDV	\$729.00	Aug/04, p57	This rugged DV-encoding drive includes a hot-shoe mount.
Sony DCR-VX2100	\$2,999.99	Aug/04, p39	Want to move up to the big leagues? Here's your camcorder.
Sony DCR-HC20	\$499.99	Aug/04, p36	This compact, inexpensive camcorder has great image quality.

DIGITAL CAMERAS

Canon EOS Digital Rebel	\$999.00	Mar/04, p48	Finally, an affordable pro-quality digital SLR camera.
Nikon Coolpix 5400	\$699.95	Dec/03, p22	This prosumer camera handles well and shoots even better.
Nikon D70 Digital SLR	\$1,299.00	Jul/04, p50	It's as close to perfect as any digital SLR camera we've seen.

DISPLAYS

Formac gallery 2010	\$1,299.00	Jan/03, p47	Bright, fast, huge—and it costs only \$0.0007 per pixel
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PRINTERS

Epson Stylus Photo 2200	\$699.00	Oct/02, p42	The most stunning photo printer we've ever tested.
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STORAGE

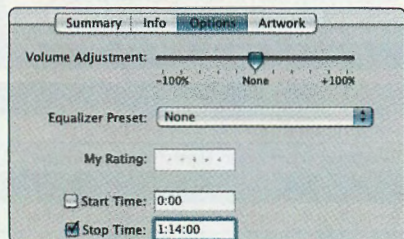
LaCie Big Disk Extreme 500GB	\$549.00	Aug/04, p55	Cutting-edge technology provides cutting-edge performance.
OWC Mercury Pro DVD-/RW	\$189.99	Aug/04, p60	The speedy drive includes everything you need to start burning.
WiebeTech G5Jam 1TB	\$1,999.95	Aug/04, p59	This internal 4-drive RAID makes a Power Mac G5 scream.
WiebeTech MicroGB800	\$429.95	May/04, p61	At 7,200 rpm, this 60GB beauty is one snappy portable drive.

ask us

BREAK UP AUDIOBOOKS

I download audiobooks from iTunes, but the files are too big to burn to a CD. Is there a way to break apart the file?

Yup, in iTunes. Let's say you have an audiobook that's 2 hours and 15 minutes long (135 minutes) and a box of 650MB CD-Rs, which hold 74 minutes of audio each. You need two CDs. First, create a new iTunes Playlist and drag the audiobook into it. With the title highlighted, press Command-I (Get Info); in the resulting dialog, click the Options tab, check the Stop Time box, change Stop Time to 1:14:00 (1 hour, 14 minutes), and click OK. Burn the CD. To create disc two, open Get Info again,



Change an audiobook's Stop Time to 74 minutes to burn the first part of your multi-CD bedtime story.

check the Start Time and Stop Time boxes, change Start Time to 1:14:00 and Stop Time to 2:15:00, and burn again.

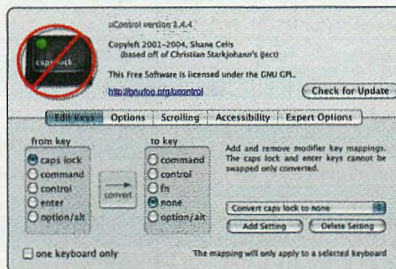
BANISH CAPITAL PUNISHMENT

How do I disable the Caps Lock key in Mac OS X?

We hate it when we accidentally engage the Caps Lock key AND START TYPING IN ALL CAPS. To disable it, use uControl (free, <http://gnufoo.org/ucontrol>), a keyboard-mapping utility. Once installed, access it via System Preferences and



set Caps Lock to None to banish future unintended shoutfests.



uControl lets you disable Caps Lock.

MULTIPLE iTUNES LIBRARIES

Is there a way to have two separate iTunes Libraries—say, one on my external hard drive and one on my Mac?

You bet! The easiest way is to use Doug Adams' iTunes Library Manager (\$5, www.malcolmadams.com/itunes). This



little AppleScript applet allows you to maintain multiple iTunes libraries on

your hard drive and external drives, and switch between them at will.

SAVE PRINTER SETTINGS

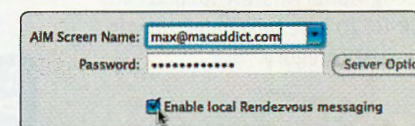
Is there any way to make Mac OS X remember my different print settings?

You can save any frequently used print setting as a preset, which will contain paper type and color prefs, as well as the number of copies. Just select Print from the File menu in your chosen app, and in the Print dialog, set all of your preferences for your printer. To save them, select Save As from the Presets pop-up menu, give the preset a name in the resulting dialog, and click OK. Anytime you want to access the preset, just pull up its name from Presets in the Print dialog.

RIG UP RENDEZVOUS

How do I create a Rendezvous network?

If you're running Jaguar or Panther, Rendezvous is ready to help—Apple designed the technology to require no configuration. You do, however, need to tell supported apps and services when you want to use it. For example, if you want to use Rendezvous for iChat messaging, open iChat's preferences, click Accounts, and check the Enable Local Rendezvous Messaging box.



Rendezvous is always on, but you need to tell apps when you want to use it.

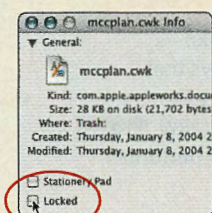
PRINT FONT PREVIEWS

How do I print a list of all my fonts so that I know what they look like?

DUMP LOCKED FILES

I can't empty my Trash. It says the files are locked. What gives?

To dump it, click Trash in the Dock, select the locked file, and press Command-I. In the resulting window, uncheck the



Locked box, close the window, and select Finder > Empty Trash.

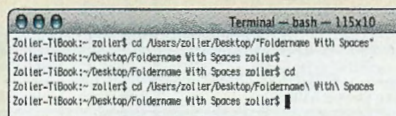
The secret to dumping a locked file? Unlock it first.

quick answers

DON'T SPACE

How do you type names with spaces in the Terminal?

Either type double quotes (") around a file name that contains spaces, or insert a backslash (\) and a space in place of every space in the name.



Use double quotes or a backslash-space combo to deal with spaces in names.

WHERE'S THE SHAREWARE?

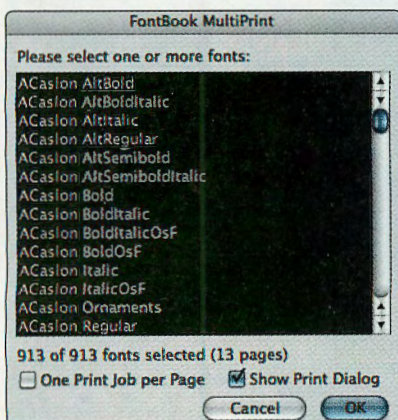
I'm a new Mac user. Where's the best place to find shareware on the Web?

Our favorite sites are VersionTracker (www.versiontracker.com) and MacUpdate (www.macupdate.com)—both have huge software archives.

Lemke Software's FontBook 4.1 (\$10, www.lemkesoft.de) lets you view and print font samples. It can print up to 75 fonts per page using whatever sample text you give it, though a pangram—a sentence that contains every letter of the alphabet—is the most useful



choice. Our favorite is "Pack my box with five dozen liquor jugs."



Use FontBook to print the ultimate font list—yours!

PUT A SPIN ON POWERPOINT

I found an amusing PowerPoint Show file I'd like to put my own spin on. Is there a way to edit .pps files in PowerPoint?

Yes, you have two choices. Instead of double-clicking a .pps file to open it, which puts PowerPoint in full-screen presentation mode, select File > Open in PowerPoint and select the .pps file. Alternately, change the .pps extension to .ppt so that the file will launch PowerPoint proper whenever you double-click it.

Show these items on the Desktop:

- ☐ Hard disks
- ☒ CDs, DVDs and iPods
- ☒ Connected servers

Uncheck this box to hide the disk.

HIDE HARD DRIVES

Can I hide the hard-disk icon so that it doesn't show up on the desktop?

From the Finder menu, select Preferences, click General in the

UNIX UNIVERSITY

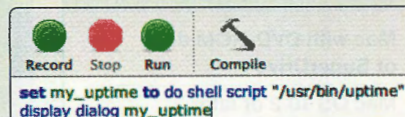
COMMAND WITH APPLESCRIPT

How do you issue Unix commands using AppleScript?

While most fearless Unix geeks issue commands via the Terminal or by creating executable shell scripts, AppleScript is an alternative option for those who prefer something a little easier to digest. In a nutshell, Mac OS X gives you the ability to issue Unix commands from AppleScript using the *do shell script* operator. To demonstrate, let's make an AppleScript that issues a Unix command to launch uptime, a Unix utility that displays how long your computer has been running.

1. Launch Script Editor (/Applications/AppleScript). In the main window, type `set my_uptime to do shell script (space) "/usr/bin/uptime",` press Return, and then type `display dialog (space) my_uptime.` The first line sets the variable `my_uptime` to be the result of issuing the *do shell script* operator to uptime (shown as a path in quotes). The second line displays this result in

a dialog. Click Compile to format the script, then click Run to test it. If you see a dialog that displays your uptime, you get a gold star.



Type in this code to find out how long your Mac has been running.

2. From the File menu, select Save As. In the resulting dialog, title your new app (we named ours *What Is My Uptime*), select Application from the File Format pop-up menu, and click Save. Now anytime you want to see how long your Mac's been working, double-click your new app.

15:18 up 17:34, 1 user, load averages: 0.30 0.20 0.25

Get this bit o' info when you double-click your new app.

KEY CAPS MIA?

Hey, where did Key Caps go in Panther?

Like folks in the Witness Protection program, Key Caps is alive and well, though it relocated and took a new name: Keyboard Viewer. This utility lets you see what keys and key combos create which characters in different fonts. To access it, open System Preferences, click International, and



Same utility, different name.

click the Input Menu tab. In the resulting pane, check the Show Input Menu In Menu Bar box, check the Keyboard Viewer box, and close the window. A little U.S. flag menubar item appears. Click it and select Show Keyboard Viewer from its menu. Well, looky there—Key Caps!

Seven years of handling tech support for Apple, Power Computing, and a Texas school district have given Buz Zoller Mac superpowers.

resulting dialog, and uncheck the Hard Disks box.

TERMINAL REPAIR

How do I repair disk permissions using the Terminal?

Open the Terminal, and type: `sudo (space) diskutilrepairPermissions /,` press Return, type your password, and press Return again. It'll look like nothing is happening, but you'll know it's done when you see your name prompt again (this can take a long time).

Submit technical questions or helpful tips directly via email (askus@macaddict.com) or c/o MacAddict, 150 North Hill Dr., Brisbane, CA 94005.



Import DVD Clips into iMovie

EASY

by Johnathon Williams

WHAT YOU NEED

Mac with DVD-ROM drive
or SuperDrive

Mac OS 10.2 or later

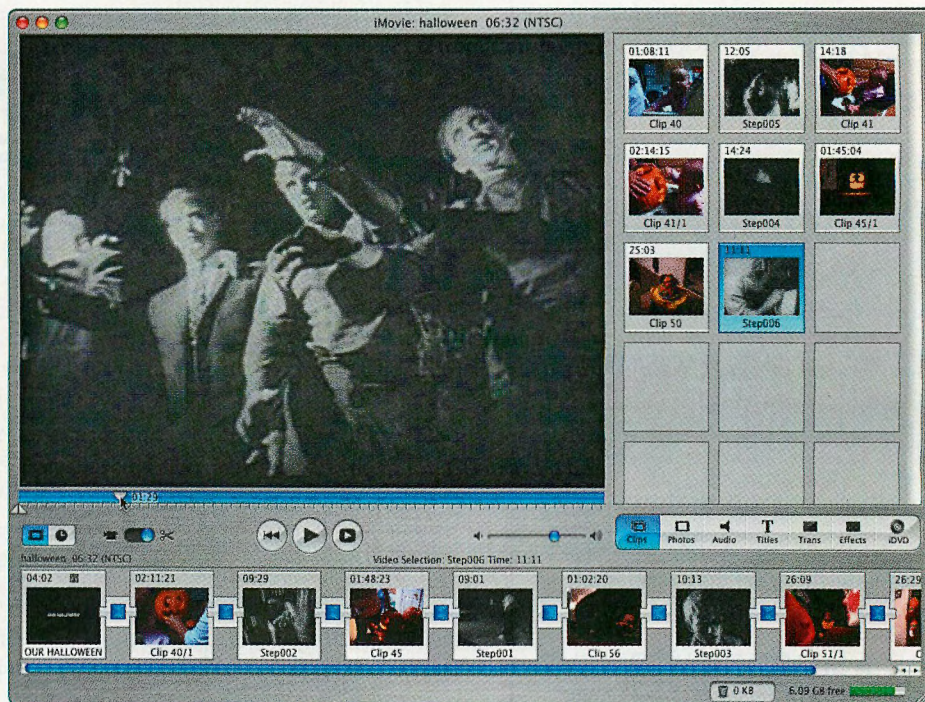
iMovie 3 or later

Snapz Pro X 2

(\$69, www.ambrosiasw.com)

Yes, you can copy footage from your favorite DVDs, but before you get all hot under the collar about copyright issues, let's spell out the situation. Documentary makers love inserting clips from popular movies into their own works for biographical purposes or to create a parallel reference. You can too—as long as it's for private use only. Even if you don't aspire to be Michael Moore, inserting a clip from, say, *Night of the Living Dead* in the middle of your sister's wedding video can get some good laughs (or a swift kick in the butt).

In the past, snagging a high-quality clip from a DVD was anything but easy and often involved hours of work with helter-skelter apps. But Mac users can rejoice—there's now a better way. Ambrosia Software's Snapz Pro X 2 allows users to record

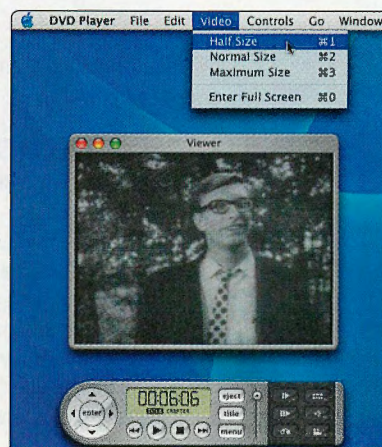


Documentary filmmaker Michael Moore's got nothing on Mac addicts—welcome to the cut-and-paste school of moviemaking.

full-motion video with sound from any part of their screen. This feature's main purpose is to create presentation videos, but it's also an easy way to record the output from Apple's DVD Player. Now you can grab great-quality footage from your favorite DVDs, import the clips into iMovie, and give your home movies some Hollywood flair. Here's how.

1 Queue Up Your DVD

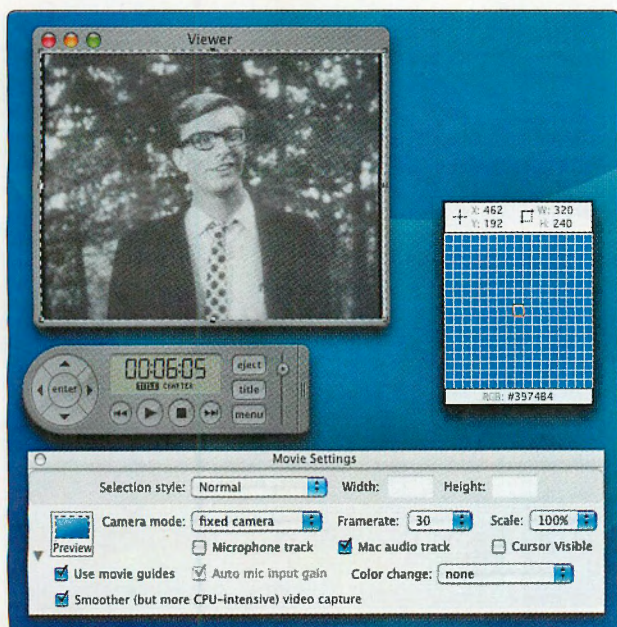
First, decide on a clip to snag. For best results, choose one that's relatively short, otherwise you'll be twiddling your thumbs for a while during the encoding process later on. Load your DVD of choice into your Mac and fire up DVD Player. Then jump to the sequence you want to copy and click the pause button a few seconds before the start of the clip. If you record a full-resolution DVD clip (DVD Player calls this Normal Size) with Snapz Pro at a full 30-fps framerate, you might crash your Mac (unless you've got a dual processor G5, of course), which has to simultaneously play the DVD and record the output. For now, set DVD Player's window size to half (Video > Half Size)—you can experiment with the window size and framerate later to figure out the best compromise between quality and performance.



The most desirable clips are like good Academy Awards speeches—short and sweet. Keep this in mind when you select a clip.

2 Set Up Snapz

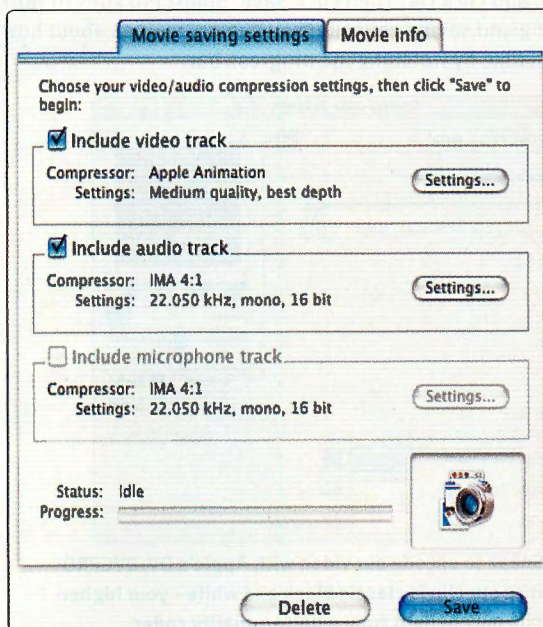
The key to getting good-quality movies out of Snapz Pro X 2 is choosing the right settings. Invoke the app by pressing Command-Shift-3 or whatever hot-key combo you set to launch it. In the resulting interface, click the Snapz Pro X tab, and from the Send To pop-up menu, select where you want to save your clip. Then click Movie to launch the movie mode. In the resulting Movie Settings window, select Normal from the Selection Style pop-up menu and select Fixed Camera from the Camera Mode pop-up. For the best-quality video, set the Framerate pop-up to 30 (you can use a lower framerate setting later if this doesn't work for your machine). If you want to capture the sound as well, check the Mac Audio Track box. Then check the Smoother (But More CPU-Intensive) Video Capture box.



Good Snapz preparation is the key to success if smooth video is your destiny.

3 Ready, Set, Record

The selection marquee (the rectangle made up of animated dashes) determines what part of your screen Snapz captures. Move the marquee over DVD Player's window (if it isn't there already) and adjust it so that it's only selecting what's inside the movie frame and not part of the DVD Player window. Then start the recording process by double-clicking inside the selection; the Snapz interface vanishes, and the app starts recording. Press DVD Player's play button to start playing the clip, making sure to avoid accidentally mousing into the movie-capture frame after you do. When the section you want has finished playing, press Command-Shift-3 (or your custom hot-key combo) to stop recording and bring up the movie-saving dialog.



Once you stop recording, Snapz brings up this encoding-settings dialog to save your movie.

How to Avoid Jail

There's a reason why every new DVD begins with a glaring FBI warning. The motion-picture industry is serious about protecting its copyrights. To stay on the good side of the law, abide by these three tips.

No Swappy Copies Do not under any circumstances use this method to copy your DVDs and share them with friends. This will seem like a no-brainer to most folks, but there's always someone who doesn't quite get it. It's illegal, folks. Copying an entire DVD with Snapz Pro wouldn't be practical anyway—not unless you wanted to wait a couple days for the movie to encode.

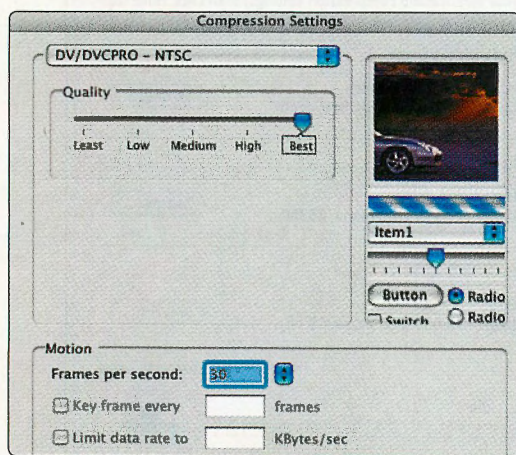
Get Permission If you use any part of a copyrighted work in a movie that you plan to make public, get permission from the copyright holder before doing so. You can, under the fair use

clause, copy bits for your own private use, but if there's a chance that you may want to show off your work to others, don't make legal assumptions under some freedom of artistic expression license—unless you want to find out for sure in a courtroom.

Grab Public Domain Flicks If you want a sure-fire plan to keep yourself out of jail, stick to copying movies in the public domain. Many old movies have passed out of copyright protection and into the public domain, which means that you can use them freely without worrying about permissions or lawsuits. The original version of George Romero's *Night of the Living Dead* is one example, which is why we chose it for our demonstration movie. Check out the public domain titles listing on Desert Island Films (www.desertislandfilms.com) for a sample of what's available.

4 Encode and Save

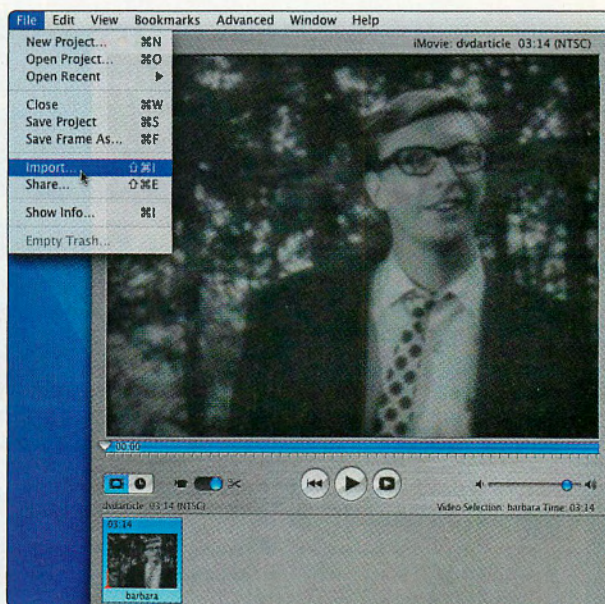
Before you use your recording, you need to encode it. Click the Movie Saving Settings tab and then click Settings in the Video Track pane to open the video Compression Settings dialog. From the top codec pop-up menu, choose a compression format for your clip—we chose DV/DVCPRO - NTSC, a good medium-quality codec. (Later on, you may want to experiment with different codecs to determine which works best for your needs—don't worry, iMovie is compatible with most of them.) Then move the Quality slider to Best (far right), and click OK. Then click Settings in the Audio Track pane (if you recorded audio); in the resulting dialog, choose a codec from the Compressor pop-up—we chose the default, IMA 4:1. To preserve the best audio quality, set Rate to 44.100 (CD-quality sound), select 16 Bit for Size, select Stereo for Use, and click OK. Then click Save. Snapz Pro goes to work, encoding and saving your clip; you can get an idea about how long it'll take by watching the progress bar.



We set Snapz to encode our video with Apple's DV/DVCPRO codec since our clip is classic black and white—your higher-quality clip may benefit from a better-quality codec.

5 Import and Edit

Once the encoding process is complete, you can find your new clip wherever you told Snapz to put it in step 2—it's now ready for prime time. To add it to a new or existing iMovie project, launch iMovie, and either create a new project (press Command-N) or open an existing one (press Command-O, navigate to and select a project in the resulting dialog, and click Open). To add your new clip, select Import from the File menu, navigate to and select your clip in the resulting dialog, and click Open. iMovie sticks the clip into the shelf from which you can edit it and toss it into the timeline as you would with your own regular DV footage. One important thing to do is trim a few seconds from the beginning of your clip to get rid of the pause before you started DVD Player. The rest is up to you, so feel free to go crazy.



Lights. Camera. Action. iMovie makes it all too easy.

Get Good Video in a Snap

In this tutorial, you dialed up a bunch of different settings to record DVD clips. These settings should work for many Macs and are a good place to start to get good-looking video, but each machine will likely need its own unique settings combination to produce the best results. As you experiment, keep the following tips in mind.

Close All Unnecessary Applications Running DVD Player and Snapz Pro X 2 simultaneously requires a lot of processing power. Quit all other apps and any background processes to prevent crashing.


Think Small Although you get the best quality video if you capture the DVD Player window at its normal size and at

30 fps, you might not be able to capture at all if you have a slower Mac. If you run into problems, keep the player window small and lower the capture framerate.

RAM Reality Simple: The more RAM you have, the better.

Get High Performance If you're a PowerBook or iBook user, eke out the most power by setting the Optimize Energy Settings pop-up menu to Highest Performance in your Mac's Energy Saver preference.

Pick Short Clips Remember, it's best to record only short clips. Longer sequences not only take more time to encode, they eat up a lot of disk space.

 Johnathon Williams carries a DV camera everywhere he goes. He has never seen his family with the naked eye.

Nothing can stop him.
Except...

Intego Desktop Internet Security and Privacy Software for Mac OS X

The Internet lets you reach out to the world, expand your knowledge and broaden your horizons. But hackers and vandals stalk your Mac, offensive content abounds on web sites, and viruses threaten your files.

Intego provides the widest range of software to protect you and your Mac from the dangers of the Internet. Intego's multilingual software repeatedly receives awards from Mac magazines, and protects more than one million users in over 60 countries.

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Intego NetBarrier X3

The first Internet security solution for Mac, including firewall, antivandal, filter, privacy and monitoring features.



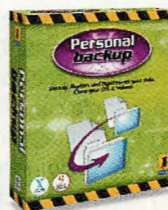
Intego VirusBarrier X

The ultimate antivirus solution for your Macintosh. Eliminates all known viruses.



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Protects your family from the dangers of the Internet so your children can surf in peace.



Intego Personal Backup X3

Provides a full range of backup, restoration, synchronization, and cloning functions.



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The must-have Internet security and privacy suite for total protection for your Mac.



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Encrypts iChat instant messaging sessions with unbreakable, military-grade encryption.

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MUSIC WORLD

Build a Cocoa App with Xcode



by Erick Tejkowski

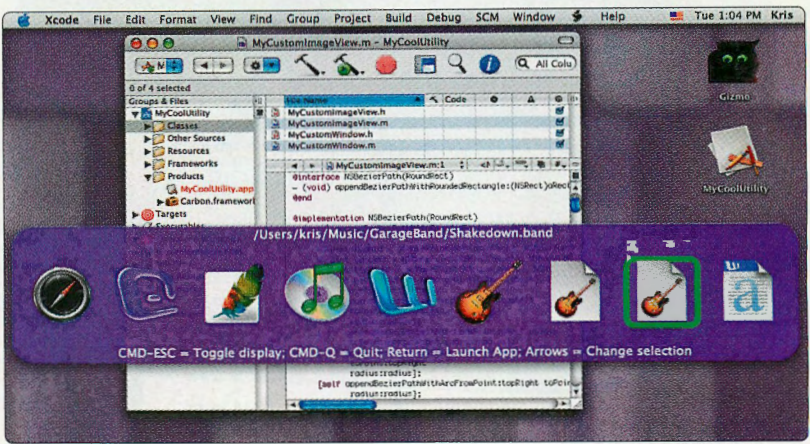
WHAT YOU NEED

Mac OS X Panther (\$129, www.apple.com)

Xcode Tools 1.2 or later (aka Developer Tools, free with Panther, <http://developer.apple.com>)

MacAddict CoolUtility Code (on the Disc)

Launchers, docks, and widgets—smart people have been cranking out OS X apps for Mac addicts everywhere. Isn't it about time you got in on the game and tried your hand at building too? Sure it is! And you're in luck—not only do we show you how to build a cool little launcher utility to get you started in the exciting world of Mac programming, you won't have to plunk down a penny if you're a Panther player. All you need is Apple's Xcode Tools 1.2 or later, which come free with OS 10.3 or can be downloaded from <http://developer.apple.com>. And don't worry; we're not going to fry your brain cells with confusing code. We've done the tough coding work for you—your job is to actually build the



Ever wonder how all those great OS X utilities were made? Find out now.

app. But if you're curious about the code, we also show you what some of the code does and how to customize it.

Our app works much like Panther's app switcher (in the Finder, press Command-Tab), which allows you to tab through and select any currently running app. But instead of displaying current apps, our cool tool displays all your Recent Items. Let's get started!

1 Get Toolled Up

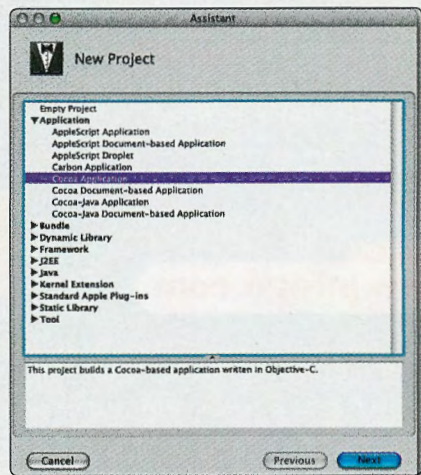
Before you can play, you've gotta have the right Tools. If Xcode 1.2 isn't installed on your machine, scrounge up the Xcode Tools CD that came with Panther (if it's version 1.2) and install the package. Can't find the CD? No problemo. Visit Apple's Developer site and click the Log In link at the top of the page. If you're not a member already, sign up for a free account. Once logged in, click Download Software. In the resulting page, click Developer Tools, download Xcode Tools 1.2 CD (it's a hefty multipart download), and install the Tools.



If you can't find your Xcode Tools CD, download the goods for free from Apple's Developer site.

2 Create a Project

The two Tools you need to be concerned with are Xcode and Interface Builder. After installing the Tools, find both apps in /Developer/Applications. Launch Xcode; if this is your first use, an Assistant window pops open to help you set up project preferences (leave everything at the default settings for now—you can change them later). Then select New Project from the File menu. In the resulting Assistant window, select

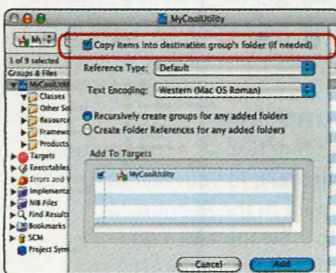


Cocoa Application from the list and click Next. In the resulting panel, type *MyCoolUtility* in the Project Name field and click Finish to create your project.

Xcode enables you to create many types of projects; Cocoa Application is the one you want for this endeavor.

3 Add Some Class

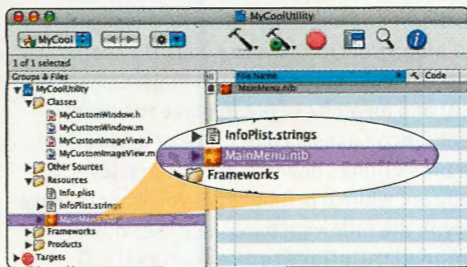
One handy fact about Cocoa projects is that you can share a *class*—a template that describes an object and how it behaves—between projects. Each Cocoa class consists of two files. The header file (aka the interface file) ends with .h and defines the class. The source file (aka the implementation file) ends with .m and contains the code that makes the class do something. Click the MyCoolUtility disclosure triangle and then click the Classes disclosure. We created two classes for you—a Window class (MyCustomWindow) and a View class (MyCustomImageView); thus, there are four files for these two classes, considering their .h and .m counterparts. Grab all four from the Disc, drag them right below the Classes folder (a circle with a horizontal black line appears), and drop 'em. A small panel appears; check the Copy Items Into Destination Group's Folder (If Needed) box and click Add.



We could make you type up a bunch of code—or not. Just drag and drop our classes into your project and you'll see this import panel.

5 Launch Interface Builder

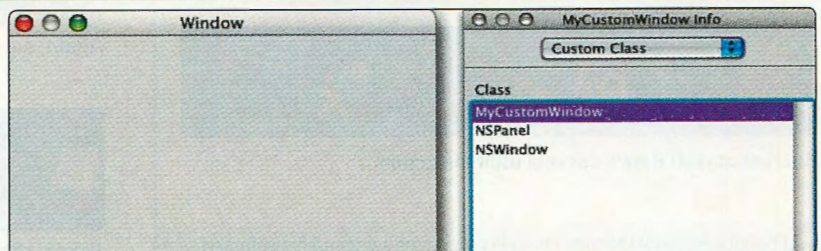
While Xcode takes care of your coding needs, Interface Builder handles the interface aspects. Click the Resources disclosure triangle to display the folder's contents, one of which is MainMenu.nib. This file holds the elements of your interface. If you're a Mac old-timer, you can think of it as much like a resource file from the Classic days, although this is not technically true. Practically speaking, a .nib file contains the guts of your interface. Double-click MainMenu.nib to launch the file in Interface Builder.



Just double-click the MainMenu.nib file to open it in Interface Builder.

7 Use the Custom Window

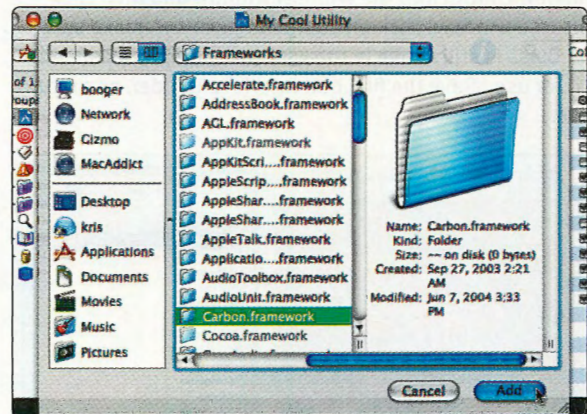
To make use of our custom Window class in Interface Builder, click the Instances tab in the MainMenu.nib window and double-click Window to bring its window to the foreground—it's currently blank. From the Tools menu, select Show Info. The Info window opens, displaying Window's various properties. Choose Custom Class from the pop-up menu at the top of the window. In the resulting panel, select MyCustomWindow from the list to set it for use.



To use our custom Window class, bring the blank Window window to the foreground; in the Info window, set Custom Class to MyCustomWindow.

4 Mix in Carbon

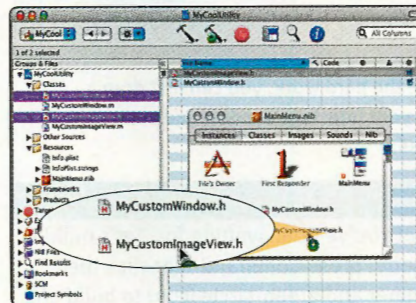
Although this is a Cocoa project, you need to use some Carbon code to build the app. Xcode lets you mix the two together in the same project. To use Carbon, you need to add the Carbon framework to the project. Select Add Frameworks from the Project menu; in the resulting panel, navigate to and select /System/Library/Frameworks/Carbon.framework and click Add.



To build your app, you need to add the Carbon framework to your Cocoa app project.

6 Make the Interface Class-y

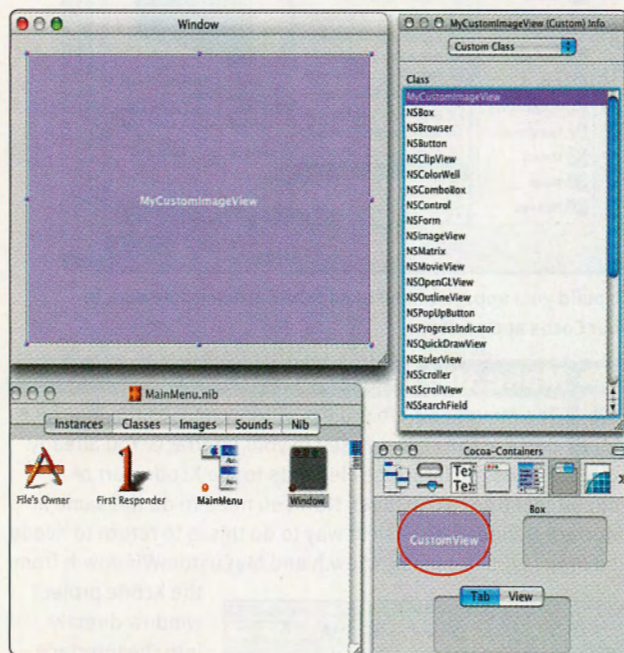
The MainMenu.nib project window houses the interface parts of the classes used in your interface. You already added our custom interface elements to the Xcode part of your project (the two .h files). Now you need to do the same in Interface Builder. The easiest way to do this is to return to Xcode and drag MyCustomImageView.h and MyCustomWindow.h from the Xcode project window directly into the Interface Builder MainMenu.nib window. So do that now.



Drag MyCustomImageView.h and MyCustomWindow.h directly into the MainMenu.nib window to add them to Interface Builder.

8 Use the Custom View

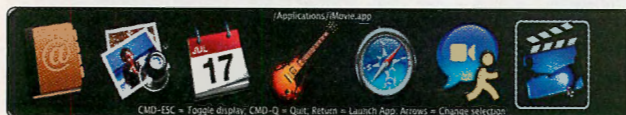
Now set our custom View class, a control that draws interface graphics (with code), for use in your interface. Open the Palettes tool (Tools > Palettes > Show Palettes). A window titled *Cocoa-something* opens; it contains a bunch of interface design elements. Mouse over the top buttons to view the different element categories, and then click the one called *Cocoa Container Views*. In the resulting screen, drag the *CustomView* control into the *Window* window and then click it. In the *Info* window, click *MyCustomImageView* (make sure *Custom Class* is still active in the window's top pop-up menu) to set it for use. Save the file, quit *Interface Builder*, and return to Xcode.



Since we've already done the hard work, you can just drag a *CustomView* control into your interface window and set it to use our custom View class.

9 Let 'Er Rip

Now, the moment you've been waiting for...let's build this beast. In Xcode, press Command-R or click the toolbar button (the hammer and green-circle icon) to build and run the app. Wait a few seconds while Xcode works its magic. If all goes well, your new Recent Items launch app is up and running (find your new *MyCoolUtility* app in the *Build* folder in your Xcode project folder).



Success at last! Here's our cool utility in action.

Erick Tejkowski spends his days praying for the return of the Beagle Brothers and his nights programming for fun and profit. He also wrote *Cocoa Programming for Dummies* (Wiley Publishing, 2003).

Behind the Scenes

Cocoa programming is not sissy stuff, and it's nearly impossible to explain all the intricacies of a Cocoa application within the confines of a magazine article. But you budding propellerheads didn't think we'd leave you high and dry, did you?

To get an idea of how your new app works, double-click *MyCustomImageView.m* or *MyCustomWindow.m* in your Xcode project to view the code. Notice that we've added comment lines—lines of text preceded by double slashes (//)—throughout the code to explain what some of the code blocks do (our comments appear above the referenced code). That way you can ease yourself into Cocoa without getting burned. But if you want a little primer in Cocoa programming, here's how to tweak our code to customize *MyCoolUtility*.

Make It a Background App

If you want *MyCoolUtility* to function as a background app (like Panther's app switcher), in your *MyCoolUtility* Xcode project, locate *Info.plist* in the *Resources* folder and double-click it to view the XML code.

You'll see a list of <key> and <string> pairs. After the last key pair, type the following two lines of code:

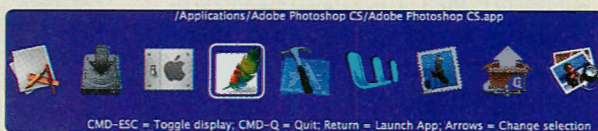
```
<key>NSUIElement</key>
<string>1</string>
```

Then save, rebuild, and run the project. It should now produce a background app. *MyCoolUtility* won't appear in the Dock, nor will it have a menu—it appears when you summon it with the Command-Escape key combo.

Change the Bezel Color

Double-click *MyCustomImageView.m* to open it and scroll down halfway until you locate the *drawRect* code. To change the bezel's color, look for this line of code: `[[NSColor colorWithCalibratedRed:(float)0.0 (space) green:(float)0.0 blue:(float)0.0 alpha:(float)0.7] set];`

This code sets the background color to black using RGB values of (0,0,0) and an alpha of 0.7 to make the bezel semitransparent. Cocoa uses a color range of 0 (zero) to 1, so you need to break things down to the decimal level. A value of 1 is fully on, while 0 is fully off. If you want to make the bezel red, type the following to replace the code line: `[[NSColor colorWithCalibratedRed:(float)1.0 (space) green:(float)0.0 blue:(float)0.0 (space) alpha:(float)0.7] set];` Likewise, if you prefer blue, type in 1.0 for blue and zero out all of the other colors. Again, save, rebuild, and run the app to see the results.



Simply change the color values in the *drawRect* block of code to make your app flaunt a new hue.

Modify the Highlight

To change the look of the thin, square highlight that appears around the active selection, scroll down a little further in the `drawRect` section until you see this code: `[thePath setLineWidth:3.0];`. Change the `setLineWidth` value to affect the highlight's line thickness—the higher the number, the thicker the line. To change the color, seek out this code two lines below: `[[NSColor whiteColor] set];`. Type `blueColor`, `redColor`, or `greenColor` to replace `whiteColor`. Or copy the color code used for the bezel for finer color control.

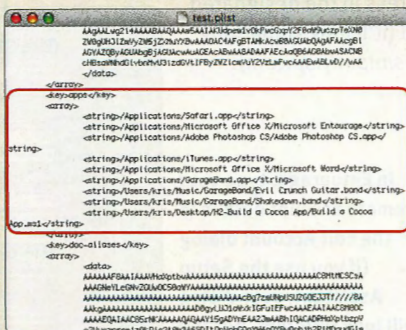
Alter the Content

Looks aren't everything—functionality counts too. If you'd rather have MyCoolUtility display only your favorite apps and docs, do the following. Copy `com.apple.recentitems.plist` (the Recent Items plist file—find it in `/Users/user name/Library/Preferences`) to your Home folder and rename it as `test.plist`. Then open `test.plist` in TextEdit. Scroll down until you see the line `<key>apps</key>`. Below it, you'll see paths to your apps between `<string>` pairs. To alter the content, modify the existing code with paths to your favorite apps and documents, following the same code convention. Save the plist file and return to Xcode.

Open `MyCustomImageView.m`, scroll down almost to the bottom until you see the `initWithAppAndIconArray` code block, and locate the following chunk of code:

```
NSString *prefsFile = [[[NSHomeDirectory()
    stringByAppendingPathComponent:@"Library"]
    stringByAppendingPathComponent:@"Preferences"]
    stringByAppendingPathComponent:@"com.apple.
(no space) recentitems.plist"]];
```

This block of code is responsible for loading the default plist file. To make the app use your new `test.plist` file, deactivate the code by commenting the block out—just add two slashes (`//`) to the beginning of each line. After this block, you'll see the following line: `//NSString *prefsFile = [NSHomeDirectory() (space) stringByAppendingPathComponent:@"test.plist"];`. Activate it by removing the two slashes that precede it. This code will now load the new `test.plist` file you created from your Home directory. Save, rebuild, and run the file to see your work.



To dictate your own content, type paths to your favorite apps and docs—be sure to include the right extensions too.

Play Games without the CD or DVD

EASY

by Kris Fong

WHAT YOU NEED

Power Mac running Mac OS 9.1 or later

Roxio Toast 5 or later (\$79.95, www.roxio.com)

Any compatible game that requires a CD or DVD to play

Enough drive space to accommodate game copies

If you're a gamer on the go, don't schlep all your game CDs and DVDs with you—especially if you've got vast vacancy on your hard drive. You can leave your precious discs at home and enjoy Unreal Tournament, The Lord of the Rings, and other games that require a CD or DVD in the drive to play. How? By creating a Toast image and fooling your Mac into thinking it's a CD or DVD.

1 Toast a Disc Image

Load a game disc and install the game if you haven't done so already. Then launch Toast and drag the game disc's icon onto the Toast window. From the File menu, select **Save As Disc Image**. In the resulting dialog, make sure the name includes the `.toast` extension, navigate to and select the game's folder on your hard drive (the folder created during installation) as the save destination, and click **Save** to crank out the disc image file. When it's done, close the Toast window without saving and eject the disc.



Save the image as a Toast disc image (`.toast`), or this workaround won't work.

2 Go Play

Go to the game's folder, select the Toast image file, and press **Command-I** to open the Info window. To force your Mac into thinking this file is a read-only disc, check the **Locked** box and close the window. To play, double-click the image file to launch Toast, then click **Mount**; the file appears as a disc icon on your desktop. Close the Toast window, launch the game app on your hard drive, and then shoot, battle, and rage on as usual.



After locking the file, just mount the Toast image, and its original's likeness pops up to say hello.

Send and Receive Email Remotely

EASY

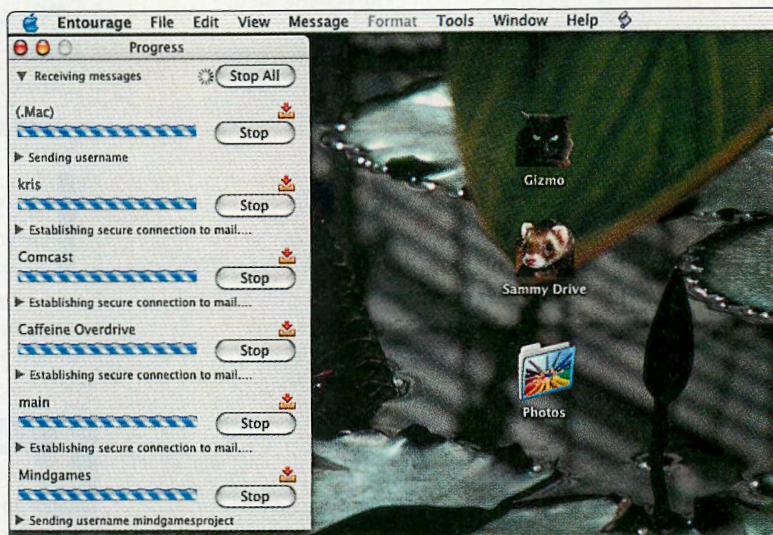
by Paul Yoon and Kris Fong

WHAT YOU NEED

Any email client

An active email account

You know the drill: You're at work (or school or an Internet cafe) and you need to check to see if that all-important email message has arrived yet. Maybe you're awaiting shipment notification on a new G5 or anticipating a follow-up note from your date last night. Regardless, you need access to your personal email box—the one you use at home—and you need it now. The problem? Your home ISP uses some crafty security mojo, and you can't seem to access your account remotely. Don't worry. It can be done. Here, we show you how to configure Apple Mail and Microsoft Entourage, but you can apply these instructions to your email app of choice.

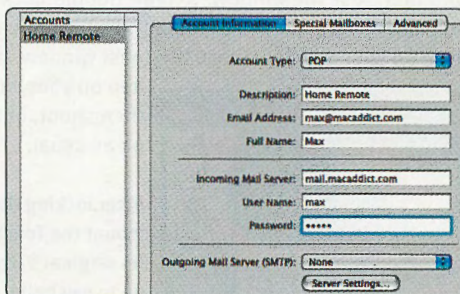


You know your home email settings, so how come you can't send or receive email from your personal account at work? We provide the workarounds.

1 Create a Mail Account

If you're using Entourage, skip to step 2. In Mail, select Preferences from the Mail menu. In the resulting dialog, click Accounts and click the plus sign (+). In the resulting panel, click the Account Information tab and select POP (Post Office Protocol) from the Account Type pop-up menu. Type a description (such as *Home Remote*), your email address, and your name in the designated fields. The Incoming Mail Server is the POP mail server from which the app fetches mail; type the appropriate address in this field. It should look something like *mail.myisp.com* or *pop.myisp.com*. Then type your user name (the name that precedes your @myisp.com address) in the User Name field and type your password below it. Select Add Server from the Outgoing Mail Server (SMTP) pop-up menu. In the resulting dialog, type your ISP's SMTP address in the field (it'll look something like *smtp.myisp.com*), and click OK. Skip to step 3.

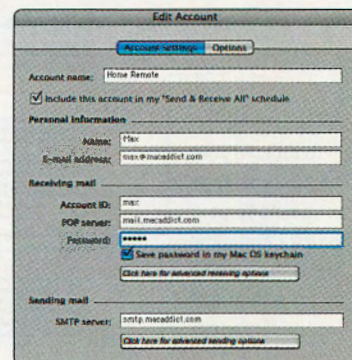
Mail user? Just create a new account as you normally would for your remote account.



2 Create an Entourage Account

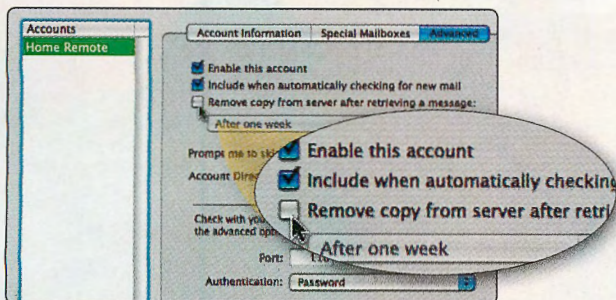
In Entourage, select Accounts from the Tools menu. In the resulting window, click the Mail tab, and then click New. In the dialog, select POP or Hotmail/MSN (depending on your account type), and click OK. In the Edit Account dialog, type a description (such as *Home Remote*) in the Account Name field, and type your name and email address in the designated fields. Type your user name (the name that precedes your @myisp.com address) in the Account ID field. Type your ISP's POP server address in the eponymous field (this is the server from which the app fetches mail). It should look something like *mail.myisp.com* or *pop.myisp.com*. Then type your password in the field below it. The SMTP (Simple Mail Transfer Protocol) server is responsible for sending email; type your ISP's SMTP address in the designated field (it'll look something like *smtp.myisp.com*).

In Entourage, type your remote account details in the Edit Account dialog (if you use the Setup Assistant, your dialog will look different, but the details are the same).



3 Opt to Save Messages

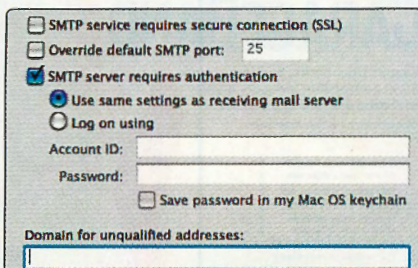
By default, once your email app retrieves messages from your home ISP's server, you can't grab them from the server again when you're at home unless you tell the app to save a copy of your mail on the server. To do this in Mail, click the Advanced tab; in the resulting panel, uncheck the Remove Copy From Server After Retrieving A Message box. In Entourage, click the Options tab and check the Leave A Copy Of Each Message On The Server box in the resulting panel. Save your new account, and then try to retrieve email remotely and send a message from your remote account. If your ISP doesn't employ any type of blocking or authentication procedures, both tasks should work. If they don't, read on for some workarounds.



If you want to retrieve messages you grabbed, say, at work once you're back at home, you need to disable Mail's Remove Copy option.

5 Enable Authentication

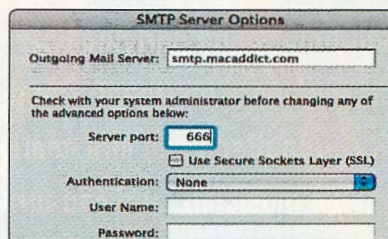
If you can retrieve email but can't send it, your ISP may require that you enable authentication via the POP server. To do this in Mail, open the account settings and click Server Settings. In the resulting dialog, select Password from the Authentication pop-up menu, type your user name and password in the corresponding fields, and click OK. In Entourage, open the account settings and click Advanced Sending Options. In the resulting dialog, check the SMTP Server Requires Authentication box, select Use Same Settings As Receiving Mail Server, and close the dialog. Save your changes and send yourself a message.



If you can get email but can't send messages from your remote account, try enabling POP server authentication (shown here in Entourage).

4 Change Ports

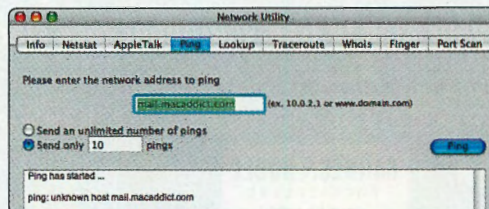
If you're having problems sending *and* receiving email, your server ports may be the culprits. POP servers generally use port 110, while SMTP servers usually use port 25. However, some ISPs require that you access different ports when connecting remotely. Find out what ports you need for remote access from your ISP. To change them in Mail, open your account settings. To change the SMTP port, click Server Settings, type the new port number in the Server Port field, and click OK. To change the POP port, click the Advanced tab and type the new port number in the Port field. In Entourage, open your account settings, click Click Here For Advanced Receiving Options, check the Override Default POP Port box, and type the new POP port number in the corresponding field. To change the SMTP port, click Click Here For Advanced Sending Options, check the Override Default SMTP Port box, and type the new port number in the field. Save your changes, and test your account again.



If your ISP requires you to access different ports when connecting remotely, type the new port numbers in your email app's settings dialog (shown here in Mail).

6 Check the Servers

If you still can't send and/or receive email from your remote account, you might want to make sure your remote ISP's server isn't down. Launch Network Utility (/Applications/Utilities) and click the Ping tab. In the resulting panel, type your ISP's POP or SMTP server address in the top field, select Send Only *number* Pings, type 10 in that field, and click Ping. If the server is running, you should see 10 consecutive lines of "bytes" info. If you get an "unknown" message or the like, your ISP's server is most likely down. Try sending and receiving email at a later time.



If you can't send and/or receive email, ping your servers using Network Utility to see if they're up and running (ours currently isn't).

Web Mail Stopgap

If your remote email needs are infrequent, consider accessing your account via a Web browser. Search your ISP's site for Web mail access or, if you have your own domain, type webmail.yourdomain.com or mail.yourdomain.com (filling

in your own variables, of course) in a browser to see if you can log in. One advantage of Web mail is that it often automatically encrypts your sessions.



Paul Yoon lives and works in San Francisco, where the Steinhart Aquarium is enjoying a rebirth of sorts.

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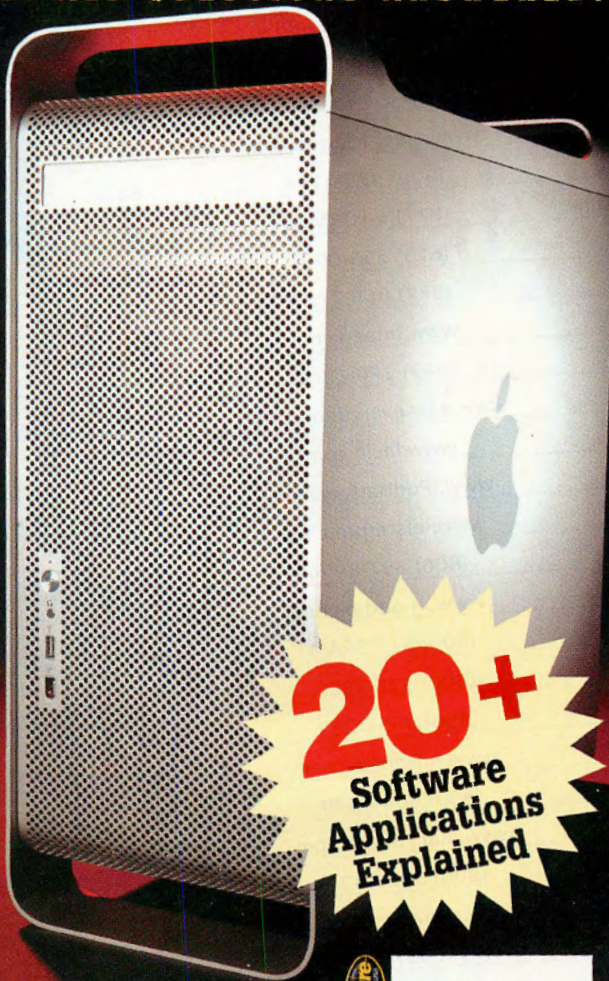
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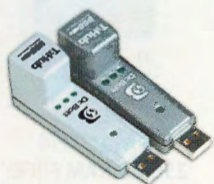
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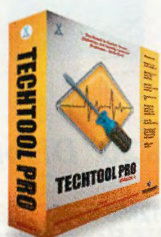
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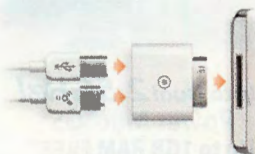
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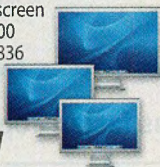
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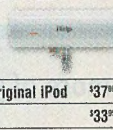
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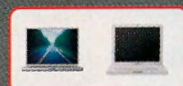
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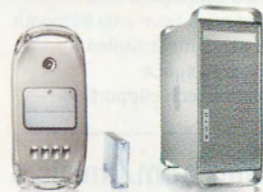
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OWC Mercury Elite Pro the sleek, compact solution that stands or stacks.



OWC Mercury On-the-Go high-speed drives "fits in a pocket" size

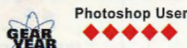


OWC Mercury Elite Pro storage solutions

2.5" On-The-Go FireWire Solutions



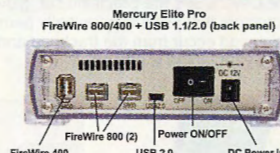
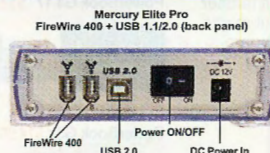
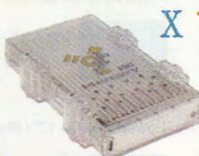
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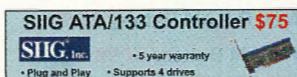
* FireWire 800 and USB 2.0 operation require Apple OS X 10.2.x or later.

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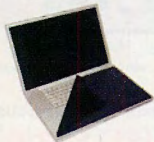
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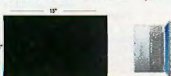
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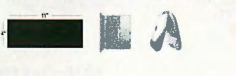
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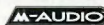


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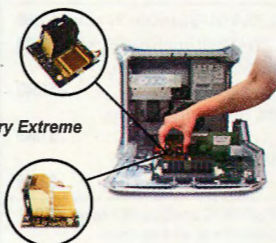


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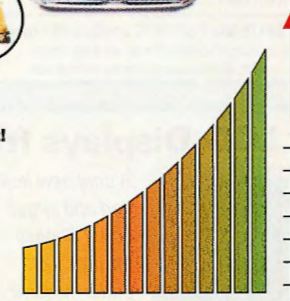
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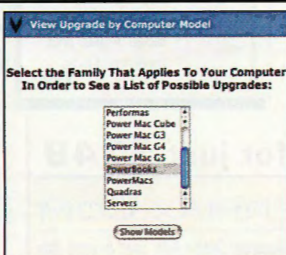
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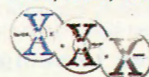
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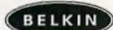
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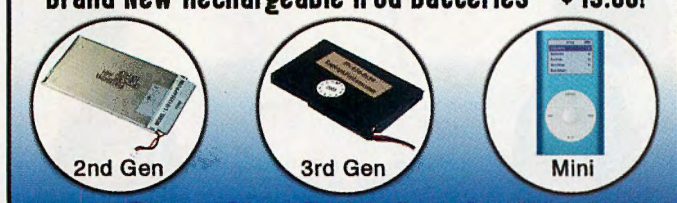
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LETTERS

A LIFE TRANSFORMED

Your article "Turn Your Mac into a Karaoke Machine" (Jul/04, p70) changed my life. My wife is in love with me again, the kids think I'm cool, and my laundry smells clean and fresh.—*Dan Rocha*

SUPER RODENT

I really liked "Dream Machines" (Jul/04, p21) and found a few new things to buy, desire, and lust after—but I think you missed one very cool mouse. It's called the MAPP Mouse, from Elecom in Japan, and was designed by the manga author Masamune Shiro. I got mine from Shinza.com (\$69.95, www.shinza.com).—*Tom Carlson*



From Japan, we present the classiest mouse alive.

FIRST KATHERINE HARRIS, NOW THIS

After Hurricane Andrew, some laws were passed down here in Florida due to unscrupulous contractors

selling warranties and then disappearing. Unfortunately, the laws also affected good businesses, and Apple decided against offering extended warranties in our state. AppleCare is still sold in all the CompUSA stores here—but when you open the box, the paperwork inside informs you that you're not covered if you live in Florida. When you return it to CompUSA, the store tells you that since you opened the box, you have to send it back to Apple for a refund. The good news is that Apple did send us our refund.

—*Ross Myers*

Butterfly ballots, hanging chads, and no AppleCare. I'm staying in California.—*Max*

THE FUTURE IS IN GOOD HANDS

I am 13. I think Macs are the greatest thing in the world next to Jimi Hendrix.

—*Ed Barnes*

Proof yet again that Mac addicts have impeccable taste.—*Max*

ONLINE GENIUSES

What is this unbridled hubris of Apple's that they refer to their AppleCare techs as Mac Geniuses? This is the ultimate in arrogance—and in my experience, not at all warranted. There is an excellent altruistic alternative, however,



RECENTLY SIGHTED

This decal is on a 170 Allis Chalmers tractor in Mississippi. My tractor on my farm.—*Ronnie Bennett*

called All Experts (<http://allexperts.com>), which has a respectable team of Mac hardware, software, and networking specialists to answer your questions. The site doesn't give out your email address and subsists only on ads that appear on the site. The experts (myself included) volunteer their time to help others.

—*Jeffrey J. Wrobel*

FONG MANIA!

Some of the GarageBand songs the staff made for Disc 93 were...interesting. I'm glad you guys write

my fave Mac magazine and don't, um, sing it. But where do we get more of that tasty Fong music? Kris's "Groove-E" was awesome!

—*Dave Neuland*

Sadly, Kris is too busy putting out our how-to section to cut a CD. Someday, maybe.—*Max*

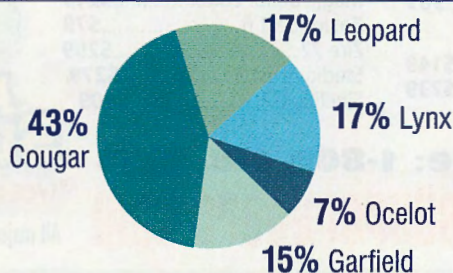
DATING TIP

I don't do idolatry much—ever, actually—but having the editors of *MacAddict* walk into the bar I work at and sign my issue number 94 was a teenage girl's dream come true! One comment, though: In "79

Survey Says

Here are the results of our May 2004 survey. Go to www.macaddict.com each month for a new online poll.

Apple has announced Mac OS 10.4, code-named Tiger. Sounds good, but we're wondering about the feline species names left for future OS X releases. Which name do you think Apple will use next?



1,407 respondents



Bartender, *MacAddict* fan, and Mac OS X customizer. We're in love.

Power Tips" (Jun/04, p18) you wrote, "Admit it, though, guys—customizing Mac OS X will almost never impress a date." Wrong! This lady would be mighty impressed by a guy who not only customizes his OS X, but who's impressed by my customization of OS X!—Dagny

We met Dagny at a decidedly cool bar—and AirPort hot spot—in San Francisco, when we were drowning our sorrows at the departure of Senior Editor Narasu Rebbapragada.—Max

TERPSICHOEAN ORTHOGRAPHY

Hey Apple-crazed ppl, i think u should put me n my friend in ur magazine, cuz ppl need to know how fun these Apple posters can be. I can see it now on the evening news: "The new weight-loss craze: Poster Dancing!"—Carlos



It's the new Twister!

YOU CAUGHT US

Your June Disc label shouted, "Never-Before-Seen Film Footage!" So all the camera work, editing, and production was done by people who can't see? —B-ware

You've stumbled upon the secret to the quality of our monthly Staff Video!—Max

PITY, NOT DISDAIN

I saw this message appear on a coworker's screen and broke down laughing to the point of nearly crying:

"Windows 2000 reports your computer has been on for over one week. To maintain the best performance from your Windows 2000 system, you should reboot your computer at least weekly." Normally my Windows 2000 laptop at work happily takes care of this for me by randomly crashing. As the uptime on my Power Mac G4 at home passes 24 days, I just wag my head at what the rest of the world considers advanced.—Jeff Dickson

MIKE'S ONE OF US

I was watching Mike Myers on Bravo's *Inside the Actors Studio* the other day. He said that not only did he write the story for the first *Austin Powers* movie in only three weeks, he did it on a Mac. Groovy, baby!—Art Lum
Cool—but hopefully his Mac had nothing to do with *The Cat in the Hat*.—Max

A DRIVE IN MOUSE'S CLOTHING

So, dudes (or dudettes, as the case may be), did you notice how the OWC Mercury Pro DVD-/RW drive on page 60 of your August issue looks just like the RadTech BT-500 Mobile Mouse on page 58? "The case doesn't make the drive," as you state—but it looks like it didn't even make the picture!

—Leo Alan "Doc" Pride

We're blushing like starlets who show up to the Oscars wearing the same dress. For a look at the real thing, check out the Mercury Pro at www.macsales.com.—Max



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Deadline for entry: September 30, 2004.
Contest results will appear in our Jan/05 issue.

Contest Rules The judges will be MacAddict editors and will base their decision on 33 percent humor, 33 percent originality, and 33 percent creativity. All entries must be received no later than August 31, 2004, with the winner announced around December 2004. By entering this contest, you agree that Future Network USA may use your name, likeness, and Web site for promotional purposes without further payment. All prizes will be awarded, and no minimum number of entries is required. Prizes won by minors will be awarded to their parents or legal guardians. Future Network USA is not responsible for damages or expenses the winners might incur as a result of this contest or the receipt of a prize, and winners are responsible for income taxes based on the value of the prize received. A list of winners may also be obtained by sending a stamped, self-addressed envelope to Future Network USA c/o MacAddict Contest, 150 North Hill Dr., Ste. 40, Brisbane, CA 94005. This contest is limited to residents of the United States. No purchase necessary, void in Arizona, Maryland, Vermont, Puerto Rico, and where prohibited by law.

Winner!

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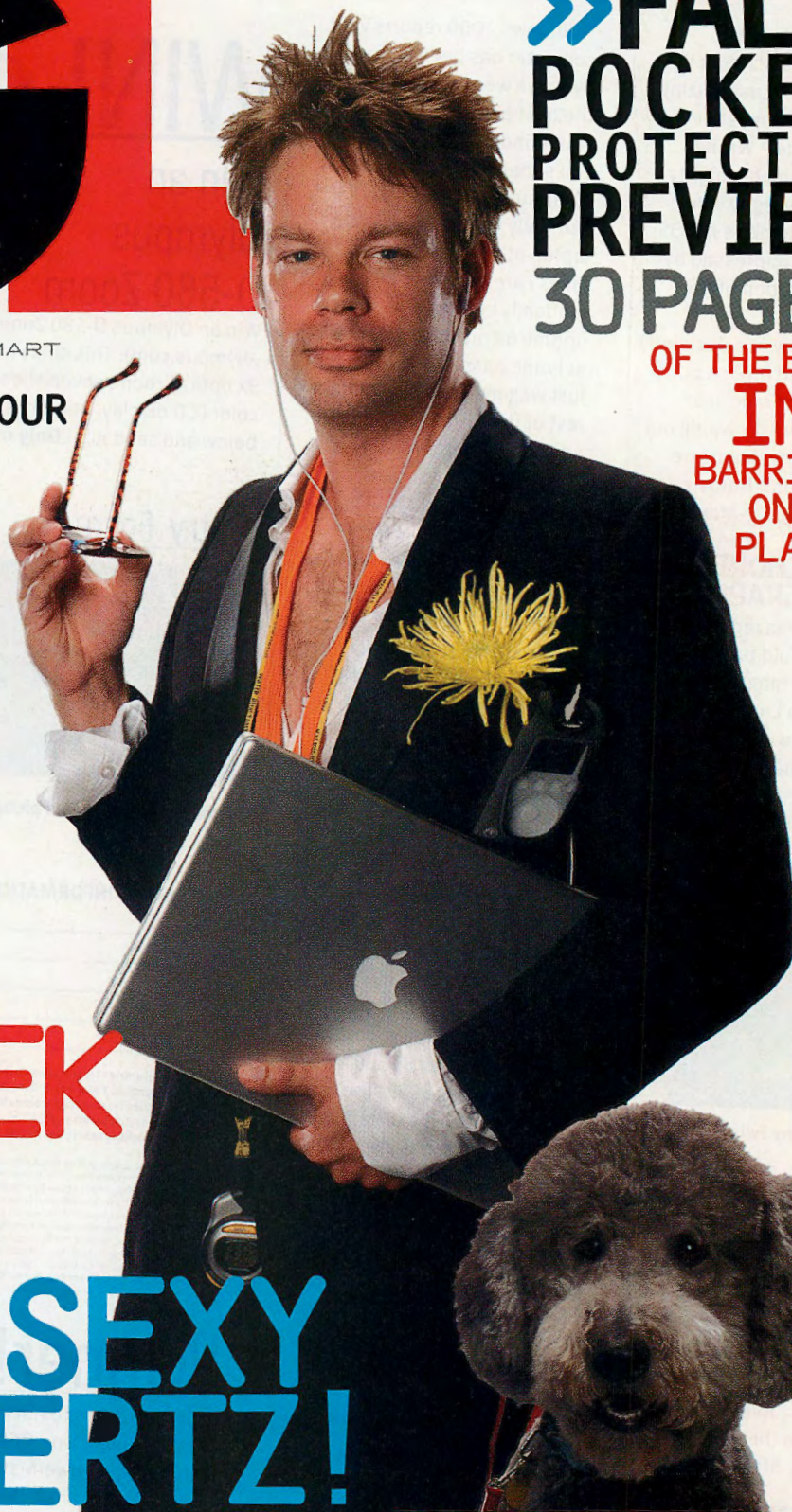
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PHOTOGRAPH BY MARK MADEO



Le Geek? Très Chic!

In honor of this month's 3rd Annual Geek Quiz (p34), the editors of *MacAddict* present *Geek Life*, a special issue celebrating the glamour and raw sexiness of Mac users. Read it with someone you love.



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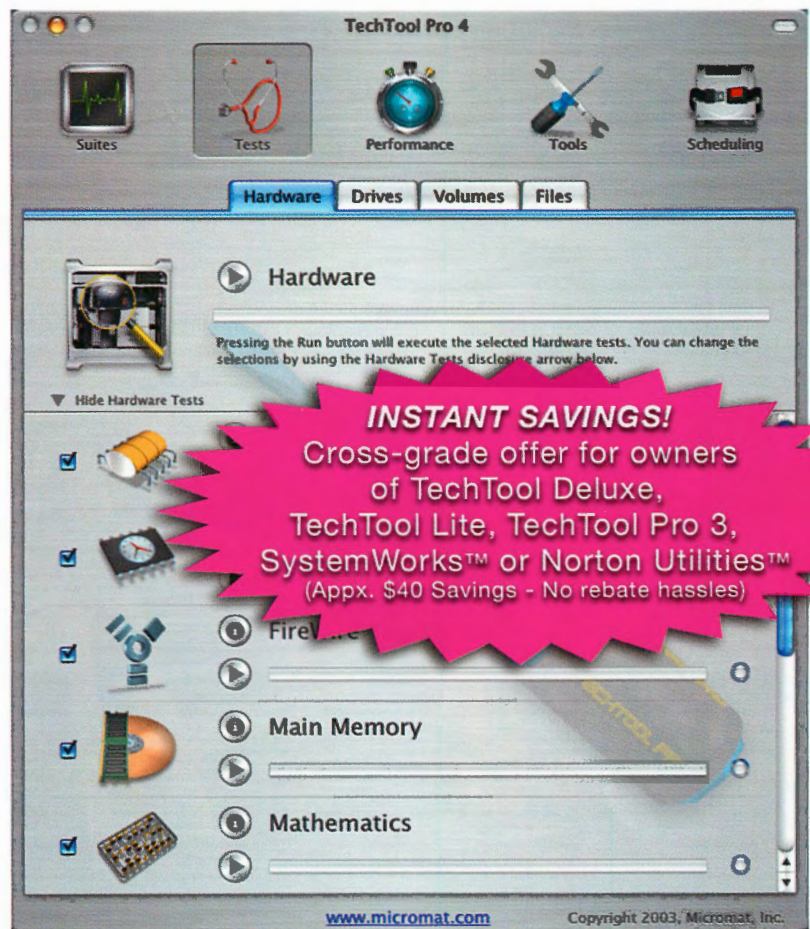
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